Summary Proceedings

of the

Twenty-ninth Meeting of the Indian Central Cotton Committee, Bombay,

held on the

28th and 29th August 1934.

INDIAN CENTRAL COTTON COMMITTEE.

29TH MEETING—28TH AND 29TH AUGUST 1934.

(*Held at Vulcan House, Ballard Estate, Fort, Bombay.*)

SUMMARY PROCEEDINGS.

AGENDA.

APPENDICES

Present:

Dewan Bahadur Sir T. Vijayaraghavacharya, K.B.E., (*President*), Vice-Chairman, Imperial Council of Agricultural Research,

Sir Purshotamdas Thakurdas, Kt., C.I.E., M.B.E., (*Vice-President*), Representative of the East India Cotton Association, Bombay,

B. C. Burt, Esq., C.I.E., M.B.E., I.A.S., Agricultural Expert, Imperial Council of Agricultural Research, (*ex-officio*),

S. V. Ramamurty, Esq., I.C.S., Director of Agriculture, Representative of the Agricultural Department, Madras Presidency,

Dr. W. Burns, I.A.S., Director of Agriculture, Representative of the Agricultural Department, Bombay Presidency,

Khan Bahadur Maulvi Fateh-ud-Din, I.A.S., Officiating Director of Agriculture, Representative of the Agricultural Department, Punjab,

J. H. Ritchie, Esq., I.A.S., Director of Agriculture, Representative of the Agricultural Department, Central Provinces,

H. B. Moore, Esq., Representative of the Bombay Chamber of Commerce,

Chunilal B. Mehta, Esq., Representative of the Indian Merchants' Chamber, Bombay,

F. G. Travers, Esq., Representative of the Karachi Chamber of Commerce,

Seth Sakarlal Balabhai, Representative of the Ahmedabad Millowners' Association,

E. J. W. Plummer, Esq., Representative of the Upper India Chamber of Commerce,

Y. G. Deshpande, Esq., Commercial Representative, Central Provinces,

Rao Bahadur G. R. Kothare, M.L.C., Commercial Representative, Central Provinces,

Khan Bahadur Sardar Habibullah, M.L.C., Commercial Representative, Punjab,

Akhil Bandhu Guha, Esq., Commercial Representative, Bengal,

Rao Bahadur M. G. Deshpande, C.B.E., Co-operative Banking Representative,

K S Ramaswami Gowndcr, Esq , Representative of cotton growers, Madras,

M R Ry K Sarabha Reddi Garu, Representative of cotton growers, Madras,

Sardar Rao Bahadur Bhimbhai Ranchodji Naik, M L C , Representative of cotton growers, Bombay Presidency,

Sardar Sampuran Singh, M L C , Representative of cotton growers, Punjab,

Mian Nurullah, M L C , Representative of cotton growers, Punjab,

N M Deshmukh, Esq , Representative of cotton growers, Central Provinces and Berar,

J B Deshmukh, Esq , Representative of cotton growers, Central Provinces and Berar,

Nizam ud Din Hyder, Esq , Director of Agriculture, Representative of the Hyderabad State,

C V Sane, Esq , Director of Agriculture, Representative of the Baroda State,

H H Pandya, Esq , Director of Agriculture, Representative of the Gwalior State,

D N Mahta, Esq , Economic Botanist for Cotton, Central Provinces,

S S Salimath, Esq , Deputy Director of Agriculture, Southern Division, Dharwar,

Musahib i Khas Bahadur S V Kanungo, Finance Minister, Representative of the Indore State,

Seth Isserdas Varindmal, Representative of the Indian Merchants' Association, Karachi,

P B Richards, Esq , I A S , Entomologist to Government, United Provinces,

Khan Saheb Farrukhbeg Sadikalibeg Mirza, Nawabshah, Sind,

Lala Shri Ram, Representative of the Cotton Millowners of Delhi,

The Secretary (P H Rama Reddi, Esq , I A S),

The Officiating Director, Technological Laboratory (R P Richardson, Esq), and

The Publicity Officer (R D Mihra, Esq)

By invitation

Mr T C S Jayarutnam I C S , Director of Land Records, Central Provinces

Mr P M Joseph, Deputy Director of Statistics, Department of Commercial Intelligence and Statistics, Calcutta

Mr A K Yegna Narayana Iyer, Director of Agriculture, Mysore State,

Mr. M. D. Williams, British Cotton Growing Association (Punjab), Ltd., Khanewal,

Rai Saheb Thakur Ram Prasad Singh, Economic Botanist to Government (for Cotton), United Provinces,

Mr. B. S. Patel, I.A.S., Deputy Director of Agriculture, Gujerat,

Mr. J. B. Hutchinson, Geneticist and Botanist, Institute of Plant Industry, Indore,

Mr. C. G. Paranjpe, Agricultural Engineer to the Government of Bombay,

Mr. B. P. Deshpande, Cotton Entomologist, Broach,

Dr. V. N. Likhite, Officer in charge, Cotton Root Rot Scheme, Baroda.

Letters and telegrams were received from the following members regretting their inability to attend the meeting :—

The Director General of Commercial Intelligence and Statistics, Calcutta,

Mr. S. D. Saklatvala, Representative of the Bombay Millowners' Association,

Mr. J. Nuttall, Commercial Representative, Madras,

Rao Bahadur C. S. Shirahatti, Representative of cotton growers, Bombay Presidency,

Khan Bahadur Maulvi Mohammad Obaidur Rahman Khan, M.L.C., Representative of cotton growers, United Provinces,

Rai Bahadur Lala Anand Sarup, M.L.C., Representative of cotton growers, United Provinces,

M. R. Ry. V. Ramanatha Iyer, Avl., Cotton Specialist, Coimbatore,

Mr. W. J. Jenkins, I.A.S., Chief Agricultural Officer in Sind,

Khan Bahadur Nawab Fazl-i-Ali Khan, Chairman, District Board and President, Central Co-operative Bank Ltd., Gujrat (Punjab).

President's Speech.

Gentlemen,

I have great pleasure in welcoming you to the 29th meeting of the Indian Central Cotton Committee.

We miss a familiar figure in the person of Sir Manmohandas Ramji who was a co-opted member of your Technological Research Sub-Committee as a representative of the Bombay Millowners' Association. Of his many-sided activities, of his independence of thinking and of the value of his contribution to the public life of the country in general, and to that of Bombay in particular, it is hardly necessary to remind you. I am sure you will ask me to express on your behalf our sorrow at the close of a life full of years and honour.

I desire to offer our congratulations to Mr. W. Roberts who has been honoured with the title of C.I.E.

I also desire to extend a cordial welcome to Seth Sakarlal Balabhai in the place of Seth Naranlal Jivanlal, to Mr. K. S. Ramaswami Gownder in the place of the Honourable Mr. V. C. Vellingiri Gownder, to Mr. Akhil Bandhu Guha in the place of Mr. Nalini Ranjan Sarkar, to Mr. F. G. Travers in the place of Mr. G. C. R. Coleridge who resigned shortly after his appointment in the place of Mr. J. O. G. Barnes, to Mr. Nizam-ud Din Hyder in the place of Mr. B. A. Collins, to Mr. S. S. Salimath as an additional member in the place of Dr. Burns, who now represents the Bombay Department of Agriculture, and to Seth Isserdas Varindmal in the place of Mr. Girdharlal B. Kotak. We are glad to see in our midst Mr. A. K. Yegna Narayana Iyer who has succeeded Dr. Coleman as head of the important and progressive Department of Agriculture in Mysore.

Our policy of encouraging the replacement of short staple cotton by medium and long staple cotton is steadily extending and the agenda of this meeting bears abundant testimony to this. The events of last year have emphasised the wisdom of this policy and there are gratifying signs that it is winning public recognition. You will all remember the full-dress debate that took place at our last meeting on the comparative merits of 1A and 1027 A.L.F. in South Gujerat. A controversy that had been going on for over five years was finally settled so far as our Committee was concerned by the decision that 1027 only was to be recognised. The Sonsek Group of Co-operative Societies which had set their face against 1027 from the beginning have in the current year taken 1027 seed in large quantities and have come into the scheme of seed distribution we sanctioned in our January meeting and formed a seed group from amongst themselves. I should like, if I may, to pay a tribute to the firmness of the Indian Central Cotton Committee in this matter and to the admirable zeal of the Bombay Agricultural Department which have produced this successful result. As a supplement to the 1027 seed distribution scheme two schemes are before you for subsidising efforts on the part of the Bombay and Baroda Departments of Agriculture to eliminate Goghari from their respective areas.

The extension of the area under Verum cotton in the Central Provinces is another step in the same direction. At its last meeting the Agricultural Research Sub-Committee asked the Central Provinces Department of Agriculture to put up a seed scheme for a period of five years instead of the usual yearly request for assistance which had been the practice hitherto. The Local Government have agreed to finance the scheme for this period by an annual recurring advance of two lakhs of rupees. On our part the Agricultural Research Sub-Committee has recommended that we should assist what is partly a marketing scheme and partly a seed scheme in order to ensure a reliable supply of pure seed and to the farmer a proper premium. It has been locally ascertained that the seed not sold through the pools supervised by the Agricultural Department was practically all adulterated and that the sellers did not obtain anything like the premium they would have got if they had sold through the pools, The merits of the scheme are therefore obvious.

In the same connection I must invite your attention to the important proposal made by the Special Sub-Committee which you have appointed to deal with the question of developing wider markets for Indian cottons. The Sub-Committee recommended that a compact area capable of growing 300,000 acres of cotton should if possible be reserved for long staple cotton in the Barrage areas of Sind. The recommendation has been examined with great care and in full detail by the Chief Agricultural Officer in Sind whose considered note is now before you. As you will see he is in full sympathy with the underlying objects of the Resolution which are to organise and control development of long staple cotton cultivation in the Barrage areas and the establishment and maintenance of a reputation for the purity and quality of the Sind-American cotton crop among consumers both in India and abroad. But he points out difficulties in the way of setting up a compact area of the nature proposed. Of all places in India, Sind offers the greatest scope for the production of long staple cotton. There is an assured demand for it and it could replace the bulk of the cottons now imported from America and Africa for spinning finer counts. I am sure the question will receive your most careful attention.

The problem of supplying the demand both in India and abroad for pure, reliable staple cottons has brought to the front the old question of the licensing of gins and presses. As long ago as 1924 the Indian Central Cotton Committee recorded its opinion that this provided the only effective solution of the evil of the mixing of inferior cottons with the Punjab-American cotton. The resolution however did not find favour and we tried other remedies which did not involve legislative action. We set up a Special Sub-Committee to deal with malpractices but by 1933 it was clear that the limit of voluntary action had been reached and that without a clause in the Cotton Ginning and Pressing Factories Act to provide for licensing, the evil could not be met. We accordingly re-affirmed in August 1933 our resolution of 1924 and this is under the examination of the Government of India. Meanwhile events have been moving fast. A representation was received by our Committee in March of this year from about forty leading cotton merchants and firms in Bombay drawing attention to the increasing malpractice of watering cotton and asking for immediate legislative action. About the same time the Central Provinces Board of Agriculture pointed out that adulteration was depriving the grower of long staple cotton of the full benefit he was entitled to get in the shape of an enhanced premium and that this stood in the way of expansion and suggested the same remedy. Representations to the same effect followed from the Bombay Millowners' Association and from the Bombay Chamber of Commerce. Our Local Sub-Committee considered these documents and asked the Vice-President to hold a conference of the interests concerned and a resolution prepared by this conference drawing attention to the "dangerous" increase in the evil of watering of cotton and asking for immediate action in the interests of Indian cotton is coming up before you for discussion.

I am afraid, Gentlemen, I have already exceeded the limit of time I have set to myself and must close with a bare mention of the report of the Special Meeting of the Agricultural Research Sub-Committee which at your instance has reviewed all the research schemes financed in the past from our funds. It has been a valuable inquiry and has resulted in important suggestions for the future.

SUBJECT 2.—*Confirmation of Minutes.*

The Minutes of the previous meeting were confirmed.

SUBJECT 3.—*Comments of the Government of India on the Annual Report of the Committee.*

The Secretary's note* was recorded.

SUBJECT 4.—*Changes in the personnel of the Committee and Sub-Committees.*

The Secretary's note* was recorded.

SUBJECT 5.—*Appointment of cotton growers' representatives on the Committee to the Board of Directors of the East India Cotton Association.*

Referring to the three places to be filled by election on the Committee of the Board of Directors of the East India Cotton Association, the *President* said that the sitting members were Messrs. N. M. Deshmukh, Mian Nurullah and Sardar Rao Bahadur B. R. Naik and that a ballot would be held if there were more than three members On the *Vice-President* proposing the re-election of the three members and being seconded by *Rao Bahadur G. R Kothare*, the motion was carried.

Mr. N. M. Deshmukh, drawing attention to the scheme of hedge contract mentioned in his report as having been placed before the East India Cotton Association, moved a resolution urging upon the Association the acceptance of the "Quality Staple Contract" introduced by him Explaining the need for this introduction, *Mr. Deshmukh* recalled its inception at the instance of the Board of Control appointed in 1918 to control prices. Prices had since gone down and the present position was that in spite of the Committee's efforts at introduction and development of vast areas of stapled cotton, the trade did not appreciate the importance of these new varieties. The East India Cotton Association had received several complaints to the effect that, under the present system, proper hedging facilities did not exist for improved cottons like those produced by the Hubli and Gadag Co-operative Cotton Sale Societies and that the growers suffered consequently. In the circumstances, the creation of a new Hedge Contract for cotton of $\frac{7}{8}''$ and longer staple was the only desirable alternative. He had accordingly framed

* Not printed.

a scheme called the "Quality Staple Contract" and placed it before the East India Cotton Association. To forestall the possibility of its going the way of the Southerns Contracts, he suggested that all cottons of $\frac{7}{8}''$ staple which were at present tenderable under the Broach Contract should be taken out of the contract and put under the new contract. His scheme was accepted by the Hedge Contracts Committee and was now before the Board of Directors. His intention in moving the resolution was to enlist the full support of the Committee in order to facilitate its smooth passage into the bye-laws of the Association.

Mian Nurullah seconded the resolution.

Sardar Rao Bahadur B. R. Naik thought the new contract would be in the interest of the grower but wished to know from the trade members if the proposal was a practical one. He was told that Navsari cotton which was $\frac{7}{8}''$ was a check on Broach Contract, but he did not mind Navsari cotton being made tenderable under the new contract, provided it did not prove a dead contract after once being created. *Mr. Chunilal B. Mehta* said that there has been great divergence of opinion, as to the benefit to the growers, on this question of widening or narrowing of hedge contracts. There was no unanimity of opinion even among growers themselves and immense harm could be done to the grower by widening a contract and making more growths tenderable against it, as buyers were reluctant to offer higher prices for a cotton which might be anything in a wide range of cottons tenderable against the contract. Widening of contracts would, therefore, only depress the contracts. He felt sure that Mr. Deshmukh's resolution would be carefully considered by the East India Cotton Association and that the purpose of the Committee could be served by sending them the discussion on the subject instead of a formal resolution.

Seth Sakarlal Balabhai thought that the new contract was unworkable, as stapled cotton was mostly purchased direct from cotton growing centres. Any new contract would benefit the growers only if it was traded in.

Mr. Travers declared that his own firm sold only recently many thousands of bales of staple cotton at Rs. 70 "ON" Broach, which was the basis of selling stapled cotton at present. He did not think growers would benefit under the system of Hedge Contracts, except on occasions when there was no demand from consumers for staple cotton. There was not enough staple cotton to meet even the demands of the Indian mills and a hedge contract merely proved a gambling medium of protection to the trade. He had little doubt that the East India Cotton Association would protect the interest of the grower, in the event of a suitable suggestion going to them, but he did not think that contract could be so shaped as to benefit the growers. *Rao Bahadur Kothare* too had his personal experience as a buyer of Verum cotton to make him think that the proposal had better wait till more staple cotton was grown in India. *Seth Isserdas Varindmal* thought that as a general practice it was undesirable to have many contracts, and that long stapled cottons like 289F fetched a premium of Rs. 3 to Rs. 4 per maund for quality.

The *Vice-President* thought that the discussion was raised for the benefit of the Board and General Body of the East India Cotton Association when they took up the proposal for consideration. However it was sought to give up Broach Contract in favour of the one now proposed, which was outside the competence of the Committee which had no power of enforcing trading in it anywhere. In the circumstances, Mr. Deshmukh had gone a little too far and was better advised to withdraw the resolution. At the most, this resolution could be put forward if it were a unanimous opinion of growers, but the present proposal represented the version of only one side. The bulk of the task of marketing cotton through its various vicissitudes devolved on a variety of agencies other than the growers and unless these people were satisfied, the acceptance of this resolution was fraught with danger to the structure of cotton marketing in India. The Broach Contract was rooted in years of tradition and its relation to world cotton prices and trade conditions provided a barometer. Since 1918, the contract was progressively made to accommodate other varieties of cotton and was used more for hedging than for actual tenders. He feared that as a consequence of this new contract making only staple cotton tenderable against it, prices would be thrown out of joint and it would not be advantageous to the growers of cotton as a whole so long as the contract did not include a fair bulk of the average Indian crop. He thought it therefore inadvisable that the Committee should be a party to a measure of this kind and urged Mr. Deshmukh to withdraw the resolution. *Sardar Rao Bahadur B. R. Naik*, after hearing the opinion of the trade members, urged Mr. Deshmukh to withdraw his resolution and suggested that the discussion on the subject be sent to the East India Cotton Association. He declared that the success of measures of this kind depended on the co-operation of all the various agencies of the trade and in its absence no one stood to gain. The Committee had no right to enforce a measure to which the trade was averse and unless they were able to convince the trade that the measure was as much in their interest as in the interest of the growers, it was no use pressing further with the measure. He however promised support to Mr. Deshmukh in the East India Cotton Association if he agreed to drop the matter from the Committee.

Mr. Deshmukh replying to criticisms maintained that the measure as formulated was intended to accommodate only cottons of $\frac{7}{8}''$ and above and not to prejudice the Broach Contract, and as for the brokers who were the principal party affected by it, he quoted a letter from the Bombay Cotton Brokers' Association in favour of more contracts.

The *Vice-President* warned Mr Deshmukh against accepting the views of the Association indiscriminately and referred him to the details of the proposal in the East India Cotton Association. Mr. Deshmukh while maintaining his case agreed to withdraw the resolution in view of the differences of opinion.

Subject 6.—*Mixing of Verum with ordinary Jari cotton.*

Mr. Ritchie, referring to the resolution proposed under Subject 9, regarding the malpractice of watering cotton, said that mixing of Verum cotton with Jari was an equally serious evil and if the extension of Verum cotton was to be a success, he suggested that the Government of India be requested to introduce a permissive clause in the Cotton Ginning and Pressing Factories Act to enable local Governments to take whatever action they deemed necessary. He had consulted the Central Provinces Government, and he was informed that the resolution of the Central Provinces Board of Agriculture was not forwarded to the Government of India, as they felt that the question was a thorny one and required great care for its elucidation. He wished, therefore, that the Resolution under Subject 9 were extended to cover other malpractices as well.

Subject 7.—*Representation of cotton interests in Karachi on the Indian Central Cotton Committee.*

The *President* said that the Government of Bombay had suggested an alternative nomination of a representative of the Karachi Indian Merchants' Association and the Buyers' and Shippers' Chamber instead of the continuous representation of the former and had asked the opinion of the Committee.

Seth Isserdas Varindmal pointed out that the Buyers' and Shippers' Chamber was represented on the Karachi Indian Merchants' Association and that therefore it required no separate representation. Mr. Jenkins also shared this view. The *President* remarked that since the interests of the Buyers' and Shippers' Chamber had been merged in the other three trade bodies in Karachi, Mr. Jenkins was definitely against any sort of representation to this Chamber. His resolution to accept Mr. Jenkins' proposal was seconded by *Seth Isserdas Varindmal* and carried unanimously.

Subject 8.—*Resignation of Mr. D. F. Kapadia, Assistant Technologist, Technological Laboratory.*

The *President* suggested leaving the question of leave and Provident Fund due to Mr. Kapadia and the action to be taken on his representation to a small Sub-Committee consisting of the President, Vice-President, Rao Bahadur M. G. Deshpande and Khan Bahadur Sardar Habibullah to be finally disposed of by the Standing Finance Sub-Committee. The *Vice-President* urged that the matter might be finally disposed of by the full Committee. The *President* had no objection to this course. A resolution proposed by the *President* and seconded by *Sardar Rao Bahadur B. R. Naik* for the appointment of a Sub-Committee with the abovementioned personnel to examine the allegations made by Mr. D. F. Kapadia and to report to the next meeting of the full Committee was carried.

SUBJECT 9 —*Licensing* of gins and presses*

The *Vice President,* drawing attention to the resolution passed in August 1933 regarding the licensing of gins and presses submitted to the Government of India, observed that the malpractice of watering cotton was growing as was evident from the requisition sent to the Committee by the trade in Bombay There was some difference of opinion on the question of licensing gins and presses but none on the question of stopping the evil Before moving the resolution at this full meeting he had taken care to see that it reflected the general opinion of the whole community concerned To that end, with the Local Sub Committee's consent he had sought to enlist the assistance of the Presidents of the Millowners' Associations of Bombay and Ahmedabad, the Bombay Chamber of Commerce, the Indian Merchants' Chamber and the East India Cotton Association in drafting the resolution reminding the Government of India of the Committee's resolution of August 1933 and drawing the attention of the Government to the dangerous increase in the evil of watering cotton which called for immediate action in the interest of Indian cotton He pointed out that unless the resolution of August 1933 was rescinded, the Committee was supposed to stand by it and bound to draw Government's attention to it The evil, he said, starting in Berar, Central Provinces and Khandesh, was rapidly spreading Those who had opposed the resolution of August 1933 could not be supposed to be changing their attitude merely by supporting the present resolution *Sardar Rao Bahadur B R Naik* seconded the resolution *Rao Bahadur G R Kothare* though sharing their disgust at the evil was against any legislative interference and, in view of the August 1933 resolution, thought the present resolution unnecessary The *Vice President* stressed the need to elicit the views of the Government of India and said that merely reminding the Government did not commit individual members to the Committee's views *Rao Bahadur G R Kothare* in reply said that the Committee should consider how legislation of the type would affect the gins and presses He pointed out that the signatories to the requisition were themselves buyers of this cotton and could put a stop to the practice if they so willed He thought that the penalty attaching to malpractices in the ordinary course of business was enough deterrent He therefore suggested that instead of urging legislation, it would be better to consult big businessmen to devise means to discourage the evil *Mr Y G Deshpande* also shared Rao Bahadur Kothare's misgivings in regard to legislation and thought that the personal influence of the Vice President with the signatories might be used to convince them of the need for ending the evil *Lala Shri Ram* remarking on the inadequacy of the contemplated measure said that benefits from this evil practice would not be enduring and would harm the interests of the agriculturists through the discredited reputation of Indian cotton He urged all necessary steps on Government

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* Appendix I (page 41)

Rao Bahadur M. G. Deshpande agreed with the President's suggestions that the plea that cotton was watered at the bidding of merchants was too lame to bear examination. Supporting the latter part of the resolution, *Seth Isserdas Varindmal* declared that the Karachi Cotton Merchants were against licensing. Pure Punjab-American cotton failed to sell in the market unless mixed to some extent. He shared the apprehensions of other members that the practice constituted a grave danger to the reputation of Indian cotton at home and abroad. He suggested that the ginners were not entirely to blame. *Sardar Rao Bahadur B. R. Naik* pointed out the compromise effected in drafting the latter part of the resolution and said that in view of the obvious danger arising from the practice, it would not do to seek to fasten the blame. Foreign Governments had taken legislative action to maintain the reputation of their cotton and the grower who, it was admitted, did not water the cotton, should not be made to suffer for the sins of others. He therefore supported the resolution. *Mr. Burt,* speaking next, expressed surprise that a commercial representative from Karachi should be unaware of the concensus of opinion in the Karachi cotton trade in favour of licensing. He recalled the offer of one of the biggest users of staple cotton in Bombay to make a contract for years ahead for 50,000 bales of 289F per annum, if guaranteed to be unmixed and thought that Seth Isserdas Varindmal, as a Karachi representative, ought to place before the Committee the recommendation of the Karachi Cotton Association, for licensing gins and presses, which was carried by a majority of 10 to 2 by the Sind Cotton Committee. *Mian Nurullah* supporting the resolution commented on its merits and observed that the growers had no hand in the malpractice.

Sardar Sampuran Singh pointed out the duties of the Committee to preserve the integrity and reputation of Indian cotton at home and abroad and recommended preventive legislative measures to ensure that their efforts bore fruit. *Seth Sakarlal Balabhai* also brought in fresh evidence of the insidious ways which adulteration took and said that if the Commission agents were not the actual culprits, they were abettors. He thought that legislation was necessary.

The *Vice-President* summing up said that there seemed to be unanimous agreement on the latter part of the resolution which was the really operative part. Rao Bahadur Kothare though opposed to legislation was unable to suggest any alternative and they could not lay much store by moral pressure. In view, therefore, of the widespread feeling against the evil, he thought that to urge legislation upon Government seemed to be the only alternative. Answering Rao Bahadur Kothare's question as to who profited by the adulteration, he said that though the grower shared some of the profit, the greater effect of this short-sighted policy was ultimately detrimental to his own interest. He was not an all-round admirer of Indian States' administration, but he had successively to point out to the efforts made by Indian States for effecting improvement in Indian cotton. He instanced the firm hand taken by Mr. Collins of the Nizam's administration to stamp out this evil with entire success.

On the *President* putting the resolution to vote, it was unanimously carried

Subject 10 —*Clean picking of cotton—Replies from Directors of Agriculture*

The *President* said that the replies received from the Directors of Agriculture showed that clean picking of cotton did not pay the cultivator These replies were only for information

Subject 11 —*Cotton Marketing—Organisation of regulated cotton markets under the Bombay Cotton Markets Act*

The Secretary's note* was recorded

Subject 12 —*Cultivation† of improved varieties of cotton in the Barrage areas of Sind—Note by Chief Agricultural Officer in Sind*

The *President* remarked that as Mr Jenkins was unable to attend due to ill health, they could proceed with the subject as the note put up by him made the matter clear

Mr Burt, referring to the resolution passed by the Special Sub-Committee set up for the purpose of finding wider markets for Indian cottons, said that the resolution drew the attention of the Government of Bombay to the urgent need of a proper cotton policy in Sind and the establishment of a compact block of 300,000 acres under long staple cotton Recalling the discussion at the Karachi meeting in February 1933 and the view of the Karachi cotton trade that Sind should grow no more than 200,000 bales of short stapled cotton, he appreciated the wisdom of the advice from the trade which was now apparent in view of the shrinking demand for short staple cotton On the other hand the demand for staple cotton had increased and the Indian mills, unable to buy their requirements at home, were importing large quantities of foreign cotton The examples set by other countries like America and Egypt and even Rajpipla nearer home to maintain one variety were a sure guidance Giving reasons for recommending for Sind a course which the Committee had not done for the Punjab, he said that the Punjab growers had failed to maintain one pure variety of the highest quality from the very start. The problems of 1934 were quite different from those of years ago Page 5 of Mr Jenkins' note which gave figures of the respective acreage for American and *Desi* cottons indicated that the Thar and Parkar District already maintained a large area under staple cotton and it would not be difficult to develop 300,000 acres of long staple cotton in a compact block The problem of mixing would not arise with the block of a nature suggested by the Committee Proper legislation after that devised in Madras could prevent mischief on the part of the minority The supply of pure seed was an important question

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* Not printed

† Appendix II (page 53)

and he had no hesitation in recommending Mr. Jenkins' proposals for a compact block to the Committee.

Seth Isserdas Varindmal drew the attention of the Committee to the case of Samrao Taluka where *Desi* cotton was grown side by side with American and observed that cultivators grew varieties suited to the conditions of soil and climate. He deprecated the idea of reserving blocks of particular varieties and said that what was unsuitable for the Punjab was equally so for Sind. He feared that the result of following that policy would be to oust the small cultivators and favour big *zamindars*.

Mian Nurullah, congratulating Mr. Jenkins on the lucid note put before the Committee, recalled the recommendations of the Indian Cotton Committee of 1919 regarding the vast possibility of growing long-staple cotton in Sind. Mr. Jenkins' note graphically illustrated this possibility. They had the assurance of a growing demand for staple cotton and conditions in Sind were different from those of the Punjab where they were confronted with settled conditions. The proximity of the Karachi port was another advantage. Referring to Mr. Jenkins' suggestions contained in paragraph 16, he suggested the drawing up of a scheme by the Chief Agricultural Officer in Sind in collaboration with the Publicity Officer of the Committee, by which big farms of 4 to 10 thousand acres could be started and given to private individuals for the production and distribution of seed. He thought that private farms commanded more popular interest than Government farms and with Co-operative Banks and Loan Societies with *zamindars* as shareholders he felt no doubt that the proposal would be a success.

Mr. Burt, in reply to a question from the Vice-President, said that the Bombay Government should be informed that the Committee fully endorsed the resolution of the Special Sub-Committee. *Sardar Sampuran Singh*, next speaking, pointed out that in the Punjab the holdings were small whereas in the Barrage areas they were large and owned by substantial individuals and the uniform nature of the Sind soil was more suitable for long-staple cotton. He disagreed with Mr. Jenkins' statement that *Desi* cotton should be assessed at an enhanced rate and suggested that in view of its lesser need and lower prices it would be an injustice. He, however, commended the rest of Mr. Jenkins' proposals.

Mr. Chunilal B. Mehta, referring to paragraph 9 of Mr. Jenkins' note in which co-operation and possible coercion of growers in the cultivation of a particular type of cotton was suggested as a means, declared that he could on no account advocate a measure which forced the hands of the cultivators to a particular variety without the option of measures against possible failures.

Khan Bahadur Sardar Habibullah denied any intention on the part of the Special Sub-Committee to coerce farmers. The proposals aimed at providing facilities to growers who wanted to sow long-staple cotton. From his own experience he could maintain that long-staple cotton could be extended in many places where it is new, Propaganda and

inducement would help to achieve success in this direction especially in the case of Sind where tracts were being newly opened up He thought Mr Jenkins' suggestion very valuable and if the Bombay Government adopted them and provided certain facilities the Committee's object would be achieved

Lala Shri Ram in view of fears expressed by Seth Isserdas Varindmal thought that the Bombay Government should be advised *to take particular* care of the interests of small *zamindars* and thought that the resolution on encouraging long staple cotton should receive the whole hearted support of everybody

Seth Isserdas Varindmal rejoinding said that he had nothing to say against long staple cotton as such but thought that the reservation of areas for particular cottons would encroach on the freedom of the growers

Mr Burt moving the resolution "**that the Indian Central Cotton Committee endorses the resolution of the Special Sub-Committee regarding the establishment of a compact block of long-staple cotton in Sind and approves generally of the proposals of the Chief Agricultural Officer in Sind**" made it clear that the Committee in formulating the proposal had in mind the interests of the average cotton growers Referring to Mr Chunilal B Mehta's suggestion about the undesirability of legislative interference with the *freedom* of the growers he pointed out that Mr Jenkins had expressed his conviction of establishing a block of long staple cotton in Sind without any further legislative action Neither was the Sub Committee committed by its resolution *to* any particular method It had called for co ordinated effort and had declared itself in favour of legislation only as an eventuality The Committee had now only to endorse the resolution and Mr Jenkins proposals It was seconded by *Khan Bahadur Sardar Habibullah* and carried unanimously

SUBJECT 13 —*Campaign for extension seed distribution and marketing of pure Sind American cotton*

On the suggestion of Mr Burt that the Secretary s suggestion be adopted, the *President* proposed the following resolution —

RESOLUTION—"That the various suggestions of the Sind Cotton Committee be referred back to the Chief Agricultural Officer in Sind for reconsideration by the Sind Cotton Committee with the object of ascertaining to what extent any of the suggestions made could be given effect to"

This was seconded by *Mr Burt* and carried

SUBJECT 14 —*Half yearly Report* of the Publicity and Propaganda Officer*

Seth Isserdas Varindmal spoke of the work of the Publicity Officer at Karachi and Sakrand and other stations in the desert of Sind which he had frequently visited and said that in view of the good work he was doing the Publicity Officer should be made permanent

* Appendix III (page 66)

Rao Bahadur G. R. Kothare and *Khan Bahadur Sardar Habibullah* variously commented on the importance of publicity to the work carried on by the Committee and the excellent work among the agriculturists done by the Publicity Officer. The extension of propaganda activities among the growers in the Central Provinces was also advocated.

Sardar Rao Bahadur B. R. Naik recalling the hesitation with which the department was opened declared that Mr. Mihra had since proved its usefulness and had brought home to the agriculturists of the country by his propaganda through leaflets and the press the importance of the work which the Committee was doing. He thought with others who had spoken before him that the Department and the Publicity Officer should be made permanent.

The *President's* resolution for the adoption of the report of the Publicity and Propaganda Officer was seconded by *Sardar Rao Bahadur B. R. Naik* and carried unanimously.

SUBJECT 15.—*Report on the Fumigation of American Cotton.*

The President proposed the following resolution which was seconded by *Mr. Chunilal B. Mehta* and carried :—

RESOLUTION—" The Indian Central Cotton Committee approves of the action taken by the Standing Finance Sub-Committee in regard to the question of the reduction of the Bombay Port Trust share of fumigation charges and the revision of the pay and allowances of the fumigation staff."

" The Indian Central Cotton Committee requests the Government of India to sanction a rebate of 8 annas per square bale and 5 annas per round bale on the fumigation fee paid on American cotton fumigated at square bale and round bale rates during the fiscal year 1933-34."

" The Indian Central Cotton Committee approves of the action taken by the Local Sub-Committee in recommending to the Government of India the abolition of the special fee of Rs. 10 for sample bales."

SUBJECT 16.—*Provincial Cotton Committees—Proceedings of the Sind Cotton Committee.*

The Secretary's note* was recorded.

SUBJECT 17.—*Summary of Proceedings of the Local Sub-Committee.*

The Secretary's note* was recorded.

* Not printed.

SUBJECT 18 —*Report of the Cotton Forecast Improvement Sub Committee*

In proposing the adoption of the Report of the Cotton Forecast Improvement Sub Committee, *Seth Isserdas Varindmal* pointed out the inaccuracies in the area and yield figures for Sind published in the last forecast and suggested that the practice followed in America with good results, might be followed in India also The *President* in reply said that the illiteracy of the Indian cultivators made a difference from the American case where information was collected from the cultivators *Mr D N Mahta* replying to Rao Bahadur G R Kothare said that the distinction in the trade classification for Indian cottons between C P Verum and Berar Verum was made because of the former s superiority in spinning quality due to differences in climate and soil The resolution proposed by the *President* and seconded by *Seth Isserdas Varindmal* was carried

SUBJECT 19 —*Schemes of the Committee—Report* of the Special Meeting of Agricultural Research Sub Committee*

Dr Burns, referring to the Special Meeting of the Agricultural Research Sub Committee, dwelt on its usefulness and said that the labours of similar previous Sub Committees and its own previous discussions in examining and overhauling its research policy should be a guide to the Committee against spending money unnecessarily on the same trials He, however, thought that in view of the fact that the Committee examined and criticised each scheme at every stage it should make its conclusions on the results with this in mind For instance, the Surat Physiological Scheme was started in the hope of increased yield by stopping shedding of buds flowers and bolls Researches had shown, however, that shedding was a normal life process in the plant But they had also added to our knowledge as to what caused shedding and the amount of incidental loss Similar discoveries relating to nourishment of plants at suitable times in the form of a suitable manure had also enabled us to determine how best to provide nourishment to ensure increased yield These results, though not of immediate practical value, were important He therefore proposed suitable amendment to the statement in the report relating to the results of the schemes *Mr Hutchinson* seconded the resolution *Mr Richards* agreeing with the amendment said that the decisions taken at the Special Meeting were not unanimous and were based on the score of the immediate cash value of the results of the schemes to the grower From the scientific aspect, the schemes have yielded important results and were calculated to save unnecessary work for other workers The *Vice President* in reply made it clear that the trade supported Cotton Cess in the hope of getting something tangible done within a measurable period Whatever the scientific value of results, the main expenditure of the Committee must be on such work as would bear fruit within a reasonable time *Khan Bahadur Sardar Habibullah* also shared the views of the Vice President

* Appendix IX (page 73)

and remarked that the general public including the growers and the trade were looking to the material results of the schemes. From the practical point of view very few schemes could be said to have given good results and, Indore apart, the Committee was not designed as a scientific body but was more interested in productive results to the agriculturists. He therefore thought that a radical change in the system of granting schemes was called for. The *Vice-President* did not, however, agree with the speaker in regarding the results as altogether disappointing. The Committee had built up a good record during the last 13 years and though the practical results of its schemes had fallen short of expectations experience will guide in the direction of more practical undertaking than has hitherto been the case. If members wanted more time to study the report the subject could be placed on the agenda of the next meeting. He also invited suggestions and criticisms from members. Replying to Mr. Richards' suggestions he also agreed to circulating a resumé of the discussion along lines suggested by Mr. Richards. The *President* informed Khan Bahadur Sardar Habibullah that the minutes of the Special Meeting of the Agricultural Research Sub-Committee had been placed before the Agricultural Research Sub-Committee at its last meeting but objection was raised to its circulation, on the ground that the Vice-President at the Special Meeting had suggested that no record of formal minutes need be kept. Though the suggestion has not been endorsed by the President he agreed that the Vice-President's remarks might have conveyed the impression that no formal minutes would be recorded. The matter on being put to vote was carried accordingly. He also said that the amendment proposed would be placed before the next meeting of the Indian Central Cotton Committee and Mr. Richards' request, as modified by the Vice-President, would be acceded to. *Mr. Chunilal B. Mehta* supported the postponement. The *Vice-President* said that the full Committee had only to receive and adopt the report under consideration, subject to such fundamental amendments as the Committee might make. He was anxious that members should have sufficient time to consider the report and accordingly suggested further discussion of the subject. The *President* then proposed to take the several items one after another and began with Dr. Burns' amendment which was carried. Item Nos. 1, 2, 3 and 4 were likewise accepted. When item No. 5 came up for acceptance with a suggestion from Dr. Burns that the Physiological Scheme also be included in it, *Mr. Burt* explained that Dr. McRae had visited Dharwar and Nagpur and after scrutinizing the mycological and entomological schemes in progress had given his opinions. The Sub-Committee had probably in mind that these schemes could be better dealt with by Universities than by Agricultural Departments. He therefore wished that the item 5 might express this idea more clearly. Following Mr. Richards' views that "scrutiny" meant careful examination of monetary value, *Mr. Burt* suggested the addition of "from the economic aspect" after the word "scrutinized". *Mr. B. S. Patel* suggested occasional visits by experts to the schemes to lay down better plans at the end of every 2 or 3 years. *Dr. Burns* proposed the deletion of item 5 altogether. *Mr. Yegna Narayana Iyer* thought that the theoretical aspect

of some problems might be left to Universities while the Agricultural Departments look to the practical parts The Special Meeting had considered that the schemes when they were sanctioned were not scrutinized sufficiently This accounted for making greater scrutiny a condition for sanctioning new schemes in the future *Mr Burt* thought that the Universities would yield good results and proposed for the second part a resolution regarding the competence of certain Indian Universities and their constituent colleges and the desirability of encouraging them to take up such problems on cotton cultivation as are adapted to their organization and equipment *Mr Richards* thought that the report had better stand as it was and the Committee could make its own decisions separately, and replying to Mr Burt who suggested amendment of the report itself said he only wanted to emphasise the economic aspect of the schemes *Mr Chunilal B Mehta* recalling the discussion at the Special Meeting said that a particular scheme had merely duplicated labour as similar results had been obtained from another scheme Careful scrutiny would have avoided this error *Mr D N Mahta* pointed out that item 5 was agreed to by the Special Meeting because the schemes sanctioned were found to have brought no results of immediate money value That, however, did not mean the scheme was a failure though from the immediate economic aspect it apparently was The *President's* proposal to delete item 5 was lost The amendments were accordingly moved and the following decisions were arrived at —

No 1—All entomological, mycological and physiological schemes should be scrutinized more thoroughly from the economic point of view

No 2—Certain Indian Universities and their constituent colleges are now better equipped than formerly for research work in these branches in science and should be encouraged to take up problems bearing on cotton cultivation as are adapted to their organization and equipment Item No 6 was carried as also the Sub Committee's findings on "B" seed distribution and extension The Publicity Department was to continue at the expiry of its sanctioned period which was approved Referring to Mr Roberts' two charges against the Committee that the Hyderabad State was treated very kindly and that the Standing Finance Sub Committee mismanaged its funds, the *President* said that the verdict of the Agricultural Research Sub-Committee on these points had to be endorsed by the full Committee. The verdict was unanimously endorsed

SUBJECT 20—*Institute of Plant Industry, Indore—Future policy*

Referring to his discussion with the Agent to the Governor General in Central India and the Prime Minister, Indore State, in accordance with the wishes of the Committee, the *President* said that they were not prepared to concede more than six seats to the Committee, as against the demand of the Committee for seven The *Vice President*, recalling the last discussion on the subject, said that the Director's residence to which the Committee was opposed was now a '*fait accompli.*' The Indore

Institute which owed its existence and maintenance to the substantial grants of the Committee had brought no very encouraging results. As against the total grant of Rs. 3 lakhs made by the States, the Committee had given no less than 13 lakhs. Dr. Keen's report furnished convincing evidence of the fact that the Committee's money had not been made the best use of. He would therefore advocate the adoption of such precautionary measures as would prevent repetition of the past. The five-year period for which the Committee had sanctioned its support would terminate with the current financial year, and it was open to the Committee to state the terms on which it was further prepared to make its contributions. Dr. Keen had doubted the possibilities of the Institute as a Central Research Body, but he (Sir Purshotamdas Thakurdas) was willing to risk a little after all that has already been spent on it, to give Mr. Hutchinson the chance he had asked for. He therefore moved a resolution for an annual grant of Rs. 85,000 for research on cotton subject to the approval of the Committee, and another demanding representation in proportion to the contributions received in the preceding year from the Committee, and a third demanding that the accounts of the Institute be audited by the Government Auditor, as long as the Institute received grants from the Committee. In explaining these resolutions, the Vice-President pointed out that the Committee's grants had been found to be more than current requirements and in order to preclude the possibility of the Committee's funds being wasted, he suggested this reduction. The President's demand regarding weightage was extremely reasonable. He did not wish to fix the representation for all time, his alternative was for proportional representation. His resolution in favour of having the accounts of the Institute audited by the Auditor-General meant only a reversion to what had been in vogue in the early years of the Institute. His reason was in the interest of the tax-payer who paid for the Government Audit Department. He was prompted in this by certain information he had on hand which he hoped he would not be compelled to divulge and if the Auditor-General could not arrange for the audit, it was his conviction that the Committee should stop its grants to the Institute. In reply to Mr. Richards, he said that the basis of his estimate in arriving at the figure of Rs. 85,000 was a general consideration of the actual recurring expenditure of the Institute, in the light of the work done. There was, however, nothing to prevent the Institute from obtaining supplementary grants when exigencies justified. He did not expect any inconvenience from the effect of reduction in the grants. *Mr. Hutchinson*, drawing attention to the enlarged research programme, said that the only course open would be to cut down the pay of the staff. The *Vice-President* in reply pointed out that specific proposals for supplementary grants would be looked into on their individual merits. Considering the statement of the Committee at the last meeting, the present grant, *Mr. Chunilal B. Mehta* thought, was generous. *Musahib-i-Khas Bahadur Kanungo* congratulated the President on evolving a working formula for continuing the co-operation between the Committee and the Institute, but he thought the general feeling of dissatisfaction with the work of the Institute was not justified. He shared the Committee's feeling that

tangible scientific results should have been better appreciated, but he thought the proposed measure was too drastic He therefore suggested that these might be forwarded to the Governing Body as suggestions and that the final decision be taken on receipt of the views of the various States *Mr Burt* thought the figure of Rs 85,000 too low in view of the enlarged programme which the Committee had accepted as satisfactory He feared that the sudden cut in the grant might hamper research work In view, however, of the Vice President's willingness to consider the granting of supplementary grants, he proposed the raising of the figure to Rs 1,00,000 The proposal that *representation on the Governing* Body should be according to contributions, he thought, was a sound one *Mr Richards* declared that the effect of the reduction would be crippling the work of the Institute and to dispense with a third of its staff was the only course open He suggested the continuation of the present arrangement till the end of 1935 36 when the question of future grants might then be considered in the light of the actual expenditure in that year and results achieved under the new programme *Mr Mahta* suggested that grants might be made on condition that unspent balances in any year should be surrendered to the Committee *Dr Burns* shared Mr Burt's *fears regarding the effect of the reduction on the Institute's* work and recommended a higher figure The *Vice President* replying to the debate assured Musahib i Khas Bahadur Kanungo that he had only the best way of serving the Institute in view Replying to objections to his figure, he said that he had no definite basis for his figures and his only object was to keep the Committee in close touch with the affairs of the Institute, than was the case hitherto His resolution was no bar to supplementary grants and he laid stress that the Committee retained the power on its purse He had no objection to add to the resolution a sentence expressing the Committee's readiness to consider supplementary grants In view of the general agreement on parts 2 and 3 the *Vice-President* said he would put them to vote as items 1 and 2 *Mr. Hutchinson* had no objection to the accounts of the Institute being audited by the Auditor General The *Vice-President* had no objection to certain minor amendments suggested by Mr Burt in paragraph 2 of the resolution and the *President* moved a resolution with Mr Burt's amendments as a substantive proposition —

RESOLUTION —" This Committee resolves that the Governing Body of the Institute of Plant Industry, Indore, be informed—

(1) *that the representation of the* Indian Central Cotton Committee on the Governing Body each year should be in proportion to the contributions received in the preceding year from the Indian Central Cotton Committee and the States taking an interest in the Institute,

(2) that the accounts of the Institute should be audited by the Auditor General as long as contributions from the Indian Central Cotton Committee continue,

(3) that the Indian Central Cotton Committee will contribute to the Institute for a period of three years from 1935-36 a minimum sum of Rs. 85,000 per year for purposes of research work in cotton—the

programme for such work for each year to be approved by the Indian Central Cotton Committee. The Committee will also be prepared to consider applications for supplementary grants for cotton research on the approved programme, if necessary."

Mr. Y. G. Deshpande expressed disagreement with the idea of incorporating in the resolution any promise of further grants but on the *President's* pointing out that Mr. Burt's amendment was the substantive proposition before the house and on the *Vice-President* explaining his reason for accepting the amendment, Mr. Deshpande withdrew his objection. The resolution as moved by the *Vice-President* was put to vote and carried unanimously.

SUBJECT 21.—*Meeting of the Indian Central Cotton Committee at Indore.*

In view of the fact that the Committee's resolution of July 1928 was inconvenient and impracticable, the *President* moved the following resolution :—

RESOLUTION—"That the Resolution of the Committee passed at its meeting in July 1928 requiring a cold weather meeting to be held at Indore once in three years be rescinded. Meetings will be held at Indore as and when the Committee considers it desirable to do so."

This was seconded by *Sardar Rao Bahadur Bhimbhai R. Naik* and carried unanimously. Thereafter *Sardar Sampuran Singh* invited the Committee to hold its next meeting at Lyallpur. *Mian Nurullah* and *Rao Bahadur M. G. Deshpande* supported the invitation, but the *President* thought that meetings outside Bombay caused a good deal of trouble in the past. However the proposal was carried, *Mr. Ritchie* and *Dr. Burns* dissenting.

SUBJECT 22.—*Madras Pempheres and Physiological Research Scheme—Reference from Special Meeting of Agricultural Research Sub-Committee.*

Mr. Ramamurty, with a view to enable the Committee to see the subject in its true perspective reviewed the history of the scheme, from its inception by the Madras Government since 1925. As they failed to secure a suitable Physiologist and a Biochemist from abroad, two officers of the Madras Agricultural Department were, with the approval of the Committee, selected for these posts and sent to England for training. The Bio-Chemist returned from England a year ago. The scheme was reviewed in August 1933, when an extension of the scheme for 5 years was recommended by the Sectional Sub-Committee presided over by Mr. Burt. This obtained the sanction of the Government of India which was in due course conveyed to the Madras Government. Mr. Ramanathan's suggestion for transferring the work of physiology at Indore had obviously given rise to some misunderstanding, which led *Mr. Burt* to suggest the discontinuance of the scheme for the first time in June last. Despite Mr. Ramanathan's protest about misinterpretation of his merely general comment on the desirability of fundamental

work on cotton physiology being taken up at Indore and Mr Hutchinson's support that physiological work on Cambodia cotton could not be undertaken at the Indore Institute, *Mr Burt* still found it necessary to suggest in his note to the Special Meeting of the Agricultural Research Sub Committee that the other part of the scheme *viz*, the bio chemical basis of Pempheres resistance should continue at Coimbatore, but he was prepared to drop that part of the scheme which was mainly a Madras problem, especially in view of the fact that the senior officers who would have guided the work were not now available *Mr Ramamurty* however assured the Committee that there was no question of dropping the scheme nor was the Madras Government finding any difficulty in carrying out the work at Coimbatore To cast an aspersion on the competence of the trained junior officers now employed on the scheme or on the Cotton Specialist whose work had been appreciated by three successive Directors of Agriculture was a belated attempt Mr Ramanathan had already satisfactorily answered all the questions raised at the meeting The Committee had a moral obligation to see the scheme through after 8 years of consideration and to drop it now would indicate that the Committee did not know their own minds—a fact which would lose them the confidence of Provincial Agricultural Departments and Local Governments, without whose help the Committee could not hope to function successfully The issue now before them was not to drop the scheme, because the results so far obtained were unsatisfactory, but how the programme could be modified to achieve the objective in view *Mr. Burt* at the outset made it clear that the senior officers he referred to were Dr Norris, Rao Bahadur Vishwanath and Mr Hilson who were not now in Madras He fully appreciated the work of Mr Ramanathan but strongly criticised the newly appointed Bio chemist The Agricultural Research Sub Committee recommended the discontinuance of the bio chemical research on purely technical grounds that the results did not seem to justify further work As the Cotton Specialist had now reported that certain strains of Cambodia were not more tolerant to Pempheres, it would be sheer folly to waste more money on it The Committee could not be expected to tax their limited resources to the utmost limit, irrespective of results obtained, as that would be a very heavy price to pay for the co operation of the Provincial Agricultural Departments The Special Meeting of the Agricultural Research Sub Committee [illegible] fearlessly reported on the merits of each scheme and he was of th[illegible] that physiological work of definite practical application co[illegible] at once *Mr Richards* said that at the special and t[illegible] the Agricultural Research Sub Committee, gener[illegible] of discontinuing the scheme As an Ent[illegible] scheme would produce no results of [illegible] cultivator In reply to Mr R[illegible] not been criticised previously be t[illegible] such schemes without careful con[illegible] that time was rolling in money L[illegible] the scheme, if like the Surat Physi[illegible] investigate matters of purely academic

that the subject should be gone through by a Sub-Committee composed of Messrs. S. V. Ramamurty, V. Ramanatha Ayyer, J. B. Hutchinson and B. C. Burt whose report should be referred to the next meeting of the Committee was agreed to.

SUBJECT 23.—*Technological Research—Progress Report* of the Director, Technological Laboratory.*

This report which covers the period from November 1933 to May 1934 presents an account of the work done in the Laboratory during those seven months and shows that the Laboratory has once again maintained a high level standard of work done. Compared with the corresponding period of the last year, the total number of samples received at the Laboratory during the period under review showed a decline of 113 samples, the bulk of which were agricultural samples.

The *President* proposed the following resolution :—

RESOLUTION—" That the progress report of the Director, Technological Laboratory, be approved."

This was seconded by *Mr. Burt* and carried.

SUBJECT 24.—*Technological Research—Report of the Technological Research Sub-Committee.*

The report of the Technological Research Sub-Committee approving of the progress report of the Director of the Laboratory and also a grant of Rs. 30,000 for obtaining a report from a Chemical Engineer in Europe or America through the High Commissioner for India on the prospects of the conversion of short staple cotton into suitable fibres was adopted.

SUBJECT 25.—*Agricultural Research—General Progress Report.*

The Secretary's note on the present position of agricultural research and seed distribution schemes was recorded.

SUBJECT 26.—*Progress Report on Surat Boll-worm Clean-up Scheme.*

The report of the Agricultural Research Sub-Committee suggesting an approach to the Government of Bombay to provide either a considerable sum of money for propaganda or for suitable administrative action in order to secure the continuance of the successful control measures under the scheme or to introduce legislation making the adoption of them compulsory was adopted.

SUBJECT 27.—*Progress Report on Broach Cotton Breeding Scheme.*

The report of the Agricultural Research Sub-Committee noting with approval the efforts that are being made to combine by hybridization the high ginning qualities of Goghari and a Viramgam strain with the other required qualities of the Broach *desi* strain, B. 18, was adopted.

* Appendix V (page 76).

SUBJECT 28 —*Progress Report on Jalgaon Cotton Breeding Scheme*

The report of the Agricultural Research Sub Committee stating that three promising strains of Neglectum have been selected for rigid yield trials during the next season was adopted

SUBJECT 29 —*Progress Report on the Scheme for Survey of Small Leaf Disease in Cotton, Bombay Presidency*

The report of the Agricultural Research Sub Committee stating that the disease is of widespread occurrence and affects all other cottons except exotics and that its cause is not any parasitic organism was *adopted*

SUBJECT 30 —*Progress Report on Sind Physiological Research Scheme*

The report of the Agricultural Research Sub Committee stating that item 3 (*b*) is not a very promising line of work, since red leaf is due to a variety of causes and suggesting consultation with the Physiologist of the Punjab before taking up this item was adopted

SUBJECT 31 —*Progress Report on Madras Herbaceum Scheme*

The report of the Agricultural Research Sub Committee that the Secretary and Mr Hutchinson should be asked to visit Coimbatore and make recommendations regarding the future of the scheme, since the scheme is only sanctioned until May 1935, and the hybrid material has reached only F-4 generations was adopted *Mr Hutchinson* explained that the Secretary and himself had been asked to visit Coimbatore not because there was any fault to be found with the scheme but because the scheme was to terminate shortly and future programme had to be decided on *Mr Ramamurty* welcomed their visit

SUBJECT 32 —*Progress Report on Madras Fodder Cholam Scheme.*

The report of the Agricultural Research Sub Committee concluding that the ill effects of *cholam* on the succeeding cotton crop are not dependent upon the quality of stubbles left in the soil, nor due to its heavy crop of fodder, and that manuring hastens ear production which is not desirable, was adopted

SUBJECT 33 —*Progress Report on Madras Pempheres and Physiological Research Scheme*

Mr Ramamurty remarked that even though he could answer the criticism of the Agricultural Research Sub Committee, he agreed that they might be referred to the Special Sub Committee, which was decided upon.

SUBJECT 34 —*Progress Report on Madras Nadam Cotton Breeding Scheme.*

The suggestion of the Agricultural Research Sub Committee that Mr Hutchinson and the Secretary should visit the scheme and discuss plans with Mr Ramanathan when visiting the Herbaceum scheme was accepted and it was decided to await their report.

SUBJECT 35.—*Progress Report on the Punjab Botanical Research Scheme.*

The report of the Agricultural Research Sub-Committee noting with satisfaction the evolution of 3 useful strains of American cotton, one of which N.T. 36-F is of unusual promise, and selection of 5 more new strains of American and one of *desi* cotton for experiments during the year under review was adopted.

SUBJECT 36.—*Progress Report on the Punjab Pink and Spotted Boll-worm Scheme.*

The report of the Agricultural Research Sub-Committee was adopted.

SUBJECT 37.—*Progress Report on the Punjab Cotton White Fly Scheme.*

The report of the Agricultural Research Sub-Committee suggesting that items 1 (1), 1 (3), (*iv*), (*v*), (*ix*), (*x*), (*xi*) and (*xiii*) of the programme of work for 1934-35 should be omitted since either they were academic or impracticable and outside the scheme and that in item 1 (2) it would be better to determine the effect of differential irrigation on infestation and yield of cotton was adopted.

SUBJECT 38.—*Progress Report on the Punjab Spraying Trials Scheme.*

The report of the Agricultural Research Sub-Committee noting the non-mention of the actual yields in sprayed and unsprayed plots and emphasising the need for full details of the individual yields in the next report in order that their statistical significance may be considered was adopted.

SUBJECT 39.—*Progress Report on the Punjab Root Rot Scheme.*

The report of the Agricultural Research Sub-Committee suggesting that in view of the fact that the scheme has only one year more to run, items 8 to 12 of the programme of work may be omitted and that instead the results so far obtained be confirmed and attention concentrated on determining whether any soil treatment reduces *Rhizoctonia* attack and whether *Rhizoctonia*-resistant strains of cotton exist since 2 species of the *Rhizoctonia* are regarded as primarily responsible for the disease, was adopted.

SUBJECT 40.—*Progress Report on the Punjab Defibrating and Delinting Scheme.*

The report of the Agricultural Research Sub-Committee saying that the machines have only been recently received and the work done is of no special value was adopted.

SUBJECT 41.—*Progress Report on the Central Provinces Botanical Scheme.*

The report of the Agricultural Research Sub-Committee was adopted.

SUBJECT 42 —*Final Report on the United Provinces Entomological Research Scheme*

In reply to *Mr Ramamurty's* enquiry as to whether the report had been completed and when it might be expected, *Mr Richards* said that the material for the report was ready and he hoped to be able to submit it by the next meeting Material facts were contained in the reports submitted to the Committee from the start to the termination of the scheme and it now remained to write up the results for publication To a further enquiry as to whether the materials referred to were those submitted by him before 1931 when the scheme was extended, Mr Richards explained that the writing up consisted of assembling and selecting the vast amount of data collected The final extension of Mr Nangpal's term had been to assist in assembling and arranging the data The *President* enquired if Mr Richards was satisfied that Mr Nangpal had used the extended period usefully in helping him to write up the report *Mr Richards* explained that the first year of Mr Nangpal's extension was almost exclusively devoted to clearing up points in the bionomics of the boll worm and the second was spent partly on this work and partly on assembling the data collected during the investigation He certainly was of the opinion that Mr Nangpal had profitably spent his time He hoped to find time on the return of the Director of Agriculture from leave and get on with the work of writing up the report *Mr Ramamurty* asked if Mr Richards could give an approximate date for the submission of the report *Mr Richards* questioned as to whether it was proper for members of the Committee to expect a Government servant who was supervising a Committee scheme, in addition to his own work, to give a fixed date He nevertheless hoped to find time and get the work written up during the next cold weather The *President* then raised the question of general principles whether the Committee was entitled to a final report or not While the Committee ought not to depend upon the goodwill of a Government servant for a final report, it ought not to pretend to get out of Mr Richards what he was not bound to give Two years were a fairly long time to get the report ready but if the report was a matter of courtesy the matter had better be dropped *Mr Burt* said that hitherto the Committee stipulated that everyone accepting a grant should furnish annual progress reports but when the last report came in the Committee invariably considered the best method of publishing the entire scientific and technical results, just as the Committee had lately considered the desirability of publishing the Surat Physiological Scheme as a monograph In the case of the United Provinces Pink Boll worm Scheme the Committee had already received annual reports containing material facts Mr Nangpal during the first year of extension had completed a minor portion of the scientific work and his subsequent period was utilized for assembling scientific data for preparation of the report The *President* remarked that in that case the Committee stood to gain nothing by having extended Mr Nangpal's services, to which *Mr Richards* replied that he would be happier if the Committee could advise the United Provinces Government to put him on special duty, like the officers engaged on Surat and Dharwar Schemes,

to write up the report. *Lala Shri Ram* was of the opinion that if the Committee had no right to ask for the report it had better not spend more money for the further extension of the scheme. *Mr. N. M. Deshmukh* contended that even if ordinarily the Committee had no right to a final report it had a right in this case as the scheme had been extended for the specific purpose. He wondered what the Publicity Officer was going to do in the United Provinces if the collected data was not available in the form of a final report. *Dr. Burns* said that in the case of the Surat Physiological Scheme and the Dharwar Wilt Scheme the Committee had willingly sanctioned time and money for writing up their reports by the officers in charge of the respective schemes. For a body with international reputation like the Indian Central Cotton Committee it was essential that its research work should be put together in a final form, properly documented and published so that for all time it might remain a work of reference in other parts of the world. In the case of the two Bombay Schemes referred to above, actual research workers had been entrusted with the work of writing up the results and given special extensions to write them up. The Committee, to his mind, had the right to call for the report, and he pleaded that more time might be allowed to enable Mr. Richards to write up the report. The *President* observed that the Secretary should in future, while communicating to the local Governments the Committee's sanction to schemes, stipulate not only for annual reports but for full reports. At present it was not clear whether the Committee was exacting final reports with legal rights or the local Governments were fulfilling their obligations. In this case the Committee had a right to ask for the report, and he requested Mr. Richards to submit the report before the next meeting. *Mr. Richards* conceded that the Committee had the right to expect the work to which it had contributed and he was himself very anxious that scientific results obtained by him should be circulated. It was agreed that Mr. Richards should submit his report before the next meeting. *Mr. Burt* suggested that in future the Committee should see that a final report was submitted within a few months after the completion of a scheme and that all the scientific data obtained during the whole term of the scheme forpublication in a suitable manner was secured. This was agreed to.

SUBJECT 43.—*Progress Report on the scheme for survey of cottons in Rohilkhand and Bundelkhand, United Provinces.*

The report of the Agricultural Research Sub-Committee on the Progress Report showing the discovery of a particular type of new plant having the external characters of G. neglectum roseum with better fibre length throughout the area surveyed and suggesting examination for its purity was adopted.

SUBJECT 44.—*Annual Report of the Institute of Plant Industry, Indore.*

The report of the Agricultural Research Sub-Committee was adopted.

Subject 45 —*Progress Report on Hyderabad Botanical Research Scheme*

The report of the Agricultural Research Sub Committee suggesting that item 2 in the programme of the scheme should be decided on in consultation with Rai Saheb Kalidas Sawhney on his return, since the work would be too much and would necessitate curtailment of programme in other aspects, was adopted

Subject 46 —*Progress Report on Hyderabad Pink and Spotted Boll worm Scheme*

The report of the Agricultural Research Sub Committee on the progress report on this scheme which showed that Pink Boll worm was a serious pest of cotton in Hyderabad State, and that critical information regarding this could be obtained only by a fully trained and experienced Entomologist in two years, who should carry out his work under black soil conditions, was adopted

Subject 47 —*Progress Report on Hyderabad Cotton Survey Scheme*

The report of the Agricultural Research Sub Committee was adopted

Subject 48 —*Progress Report on Bikaner Gang Canal Scheme*

The report of the Agricultural Research Sub Committee on the Progress Report showing that of all cottons so far tested Mollisoni is best suited to the agricultural conditions of Ganganagar was adopted

Subject 49 —*Progress Report on Baroda Root Rot Scheme*

The report of the Agricultural Research Sub Committee considering a species of *Rhizoctonia* as the main cause of the disease and noting the selection of plants less susceptible to disease was adopted

Subject 50 —*Progress Report on Burma Cotton Improvement Scheme*

The report of the Agricultural Research Sub Committee recommending that the scheme should be continued to its sanctioned period but no extension would be given to it was adopted

Subject 51 —*Seed Distribution and Extension Schemes—Progress Report on Hubli Scheme*

The report of the Agricultural Research Sub Committee was adopted

Subject 52 —*Seed Distribution and Extension Schemes—Progress Report on Gadag (Extension) and Gadag (Supplementary) Schemes*

The report of the Agricultural Research Sub Committee was adopted

SUBJECT 53.—*Seed Distribution and Extension Schemes—Progress Report on Surat Scheme.*

The report of the Agricultural Research Sub-Committee was adopted.

SUBJECT 54.—*Seed Distribution and Extension Schemes—Progress Report on Khandesh (Banilla) Scheme.*

The suggestion of the Agricultural Research Sub-Committee that the spinning tests in Banilla should be supplied along with the progress report was adopted.

SUBJECT 55. *Seed Distribution and Extension Schemes—Progress Report on Athani Scheme.*

The Report of the Agricultural Research Sub-Committee was adopted.

SUBJECT 56.—*Seed Distribution and Extension Schemes—Progress Report on Sind Scheme.*

The Report of the Agricultural Research Sub-Committee suggesting the desirability of making attempts at as early a date as possible, to fix zones for the different cottons to be recommended, and recommending the continuation of the propaganda scheme, was adopted.

SUBJECT 57.—*Seed Distribution and Extension Schemes—Madras (Tiruppur) and Co. 2 Schemes.*

The Report of the Agricultural Research Sub-Committee recommending that these progress reports should be as concise as possible consistent with clearness and admitting the satisfactory working of the scheme was adopted.

The attention of the Committee being drawn by *Mr. Ramamurty* to the fact that the Tiruppur Co-operative Society worked so successfully that it did not ask for the subsidy granted by the Committee, the *President* congratulated its leader, Mr. Ramaswami Gownder, on his ability to conduct the affairs of the Society, so successfully.

SUBJECT 58.—*Seed Distribution and Extension Schemes—Progress Report on H1 Scheme.*

The Report of the Agricultural Research Sub-Committee recommending its closure and starting of a fresh scheme only if it overcomes all the difficulties encountered in the past was adopted.

Mr. Ramamurty informed the Committee that in anticipation of its sanction he had already closed the H1 scheme and hoped to place a fresh scheme next year.

SUBJECT 59.—*Seed Distribution and Extension Schemes—Progress Report on the Central Provinces (Verum) Scheme.*

The Report of the Agricultural Research Sub-Committee approving of the very satisfactory progress made by [illegible] that it should be combined with the new [illegible] as suggested by the Director of Agriculture, was adopted.

SUBJECT 60.—*Seed Distribution and Extension Schemes—Progress Report on Hyderabad Scheme.*

The Report of the Agricultural Research Sub-Committee approving of the proposal of the Hyderabad Agricultural Department to organize their own local seed production to obviate the necessity of importing large amounts of seed was adopted.

SUBJECT 61.—*Seed Distribution and Extension Schemes—Statement of costs for cotton ginned at the Lyallpur Ginnery.*

The Report of the Agricultural Research Sub-Committee, noting the total cost of ginning one maund of cotton as Re. 0-2-9 for saw gin and Re. 0-7-10 for roller gin, was adopted.

SUBJECT 62.—*Seed Distribution and Extension Schemes—Progress Report on Baroda Scheme.*

The Report of the Agricultural Research Sub-Committee suggesting that a larger area than that proposed in the scheme should be controlled since Baroda has nearly two lakhs of acres under cotton was adopted.

SUBJECT 63.—*Proposed New Agricultural Research Schemes—Scheme for investigation into Root Rot of Cotton in Gujerat.*

The Report of the Agricultural Research Sub-Committee suggesting the undesirability to start another scheme when schemes on the same subject are already in progress in the Punjab and Baroda State was adopted.

SUBJECT 64.—*Proposed New Agricultural Research Schemes—Scheme for study of "Lang" Caterpillar pest in Gujerat.*

The Report of the Agricultural Research Sub-Committee saying that this is not a cotton problem and therefore not suitable for a grant from the Indian Central Cotton Committee was adopted.

SUBJECT 65.—*Proposed New Agricultural Research Schemes—Scheme for survey of Goghari cotton in Gujerat.*

The Report of the Agricultural Research Sub-Committee recommending its sanction for five years at an estimated cost of Rs. 5,000, since the scheme is a necessary corollary of the Committee's policy to grow only 1027 A.L.F. south of Nerbudda, was adopted.

SUBJECT 66.—*Proposed New Agricultural Research Schemes—Scheme for survey of Goghari cotton in Baroda State.*

The recommendation of the Agricultural Research Sub-Committee to sanction this scheme for five years at an estimated cost of Rs. 5,000 was adopted.

SUBJECT 67.—*Proposed New Agricultural Research Schemes—Scheme for Cotton Jassid Investigation in the Punjab.*

The Director of Agriculture, Punjab, agreeing with the Agricultural Research Sub-Committee that for the present this scheme can be carried on by the existing entomological staff at Lyallpur, the scheme was withdrawn.

SUBJECT 68.—*Proposed New Agricultural Research Schemes—Scheme for investigation into "Red Leaf" disease of Doddahathi (American) cotton in Mysore.*

Pointing out the possibility of considerable increase in the area under Dharwar-American cotton in the Mysore State in the event of "Red Leaf" being brought under control, *Mr. Yegna Narayana Iyer* pleaded for a grant of Rs. 10,000 per annum for 5 years, to enable the Mysore State to carry on the work. The State had been co-operating with the Committee from the very inception of the Committee and commanded all facilities of equipment and staff, for central research of the disease. The *President* in reply drew attention to the Agricultural Research Sub-Committee's Report which had recommended postponement of the scheme and assured the previous speaker that there was no question of a slur on the Mysore Agricultural Department. *Mr. Burt* pointed out that as stated in paragraph 2 of the note on the subject, it was only on technical grounds that the scheme was left over till the next meeting, with a view to enable scattered information being collected in the meanwhile. The Report of the Agricultural Research Sub-Committee was adopted.

SUBJECT 69.—*Proposed New Seed Distribution and Extension Schemes—Wagad Seed Distribution and Extension Scheme.*

The Report of the Agricultural Research Sub-Committee suggesting that Mr. Patel be asked to put up a modified scheme to cover the initial stages of testing and distribution and recommending to the Committee for giving help in this scheme was adopted.

SUBJECT 70.—*Report* of the Agricultural Research Sub-Committee.*

The *President* proposed the following resolution :—

RESOLUTION—"That the report of the Agricultural Research Sub-Committee be adopted."

This was seconded by *Sardar Rao Bahadur B. R. Naik* and carried.

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* Appendix VI (page 84).

SUBJECT 71.—*Report** *of the Standing Finance Sub Committee*

(*a*) *Balance Sheet as at March 31st*, 1934.
(*b*) *Final Accounts*, 1933-34.
(*c*) *Revised Estimates*, 1934-35
(*d*) *Budget for* 1935-36 (*Government servants*).

Rao Bahadur M. G. Deshpande drew attention to the large number of new schemes sanctioned at this meeting and suggested that the Standing Finance Sub Committee should provide money for these schemes only in order of priority to be decided upon by that Sub Committee, otherwise the reserves of the Committee would soon be depleted The *President* suggested that the drawing up of the priority list be left to the Standing Finance Sub-Committee, which was agreed to. *Seth Isserdas Varindmal* suggested the formation of small Provincial Sub Committees to supervise the provincial schemes, to which view *Mr. Burt* replied that this point had already been considered.

The Committee had made a recommendation to all local Governments that members of the Indian Central Cotton Committee should also be made members of the Provincial Cotton Committees and this recommendation was given effect to in all provinces. The Committee's object would be well served if Provincial Cotton Committees would take an active interest in research as well as trade matters The Sind Cotton Committee was a very live one and he felt sure Mr Jenkins will give it all liberty to discuss the Sind research schemes *Mian Nurullah* regretted the lack of control over the Committee's budget instancing the way in which money had been allowed to accumulate at Indore for several years for no obvious purpose He suggested that the budgets and the balance sheets should be presented in an intelligible and more straightforward manner and saw no necessity for providing for expenditure which was not being incurred, as for example, the Deputy Secretary's post which should be filled *Sardar Sampuran Singh* said that the Committee had better leave research workers to do their work peacefully without the supervision of a Sub Committee of laymen *Mr. Y. G. Deshpande* suggested that the Directors of Agriculture might take in their confidence members of their Provincial Cotton Committees when a scheme was to be sanctioned, as it was essential that local members should be satisfied on the benefits to the province of a particular scheme before it was submitted to the Indian Central Cotton Committee. He suggested that the Provincial Cotton Committee of the Central Provinces might meet more frequently to discuss every new scheme and offer advice. *Mr. Chunilal B. Mehta* was of the opinion that local committees would be beneficial in that their members would bring to the notice of Directors of Agriculture what the general public, trade and the agriculturist thought about a particular proposal He was in favour of more time being allowed to the consideration of this subject so that it might be brought before the next meeting. *Mr. Mahta*, as Secretary of the Central Provinces Provincial Cotton Committee said that the numbers of

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* Appendix VII (page 96)

meetings depended entirely on the number of suitable subjects to be discussed. If no suggestion was received and the Department had no important items on the agenda, no meeting was held. Referring to a remark made by a member that they might inspect and report on the work done in the provinces, he would like to enquire how often did Mr. Deshpande take the trouble of paying a visit to the Research Laboratory and the Farm when he came to Nagpur. *Dr. Burns* thought there were already sufficient Committees. The Indian Central Cotton Committee amply fulfilled the object Seth Isserdas Varindmal had in view. The disagreement which the Committee had over a phrase in the findings of the Special Meeting of the Agricultural Research Sub-Committee under Subject 19 demonstrated how the different interests even on the Indian Central Cotton Committee could differ. The Committee provided a common platform for the co-ordination of different interests and any further division would lead to narrow provincialism. The *President* suggested that the first proposal of the appointment of Provincial Committees to supervise schemes might be referred to the Agricultural Research Sub-Committee for report and the second one pertaining to the presenting of the budget be referred to the Standing Finance Sub-Committee for report. *Seth Isserdas Varindmal* said that the Sind Cotton Committee had full confidence in Mr. Jenkins. He only wished to point out that the Committee which controlled the purse could have its voice heard more effectively than the Sind Cotton Committee. *Sardar Rao Bahadur B. R. Naik* thought that the representatives of the trade and growers should know what was going on in their respective districts and although he knew that no local Government would allow another body to supervise the work of their agricultural department, yet members should have the privilege of acquainting themselves with the work done in their respective areas, just as members of Legislative Councils were entitled to local information, so that they may pass it on to the agriculturist of the locality. *Mr. Y. G. Deshpande* took exception to the remarks of Mr. Mahta and said that members could only be expected to give their views when called upon to do so and not suggest subjects, to which *Mr. Mahta* replied that every opportunity was given at the Provincial Cotton Committee's meetings to discuss the schemes in progress and every scheme was put before the Provincial Cotton Committee which met at least once a year.

The following resolution was proposed by the *President*, seconded by *Mr. Chunilal B. Mehta* and carried unanimously :—

RESOLUTION—"That the Report of the Standing Finance Sub-Committee be adopted."

"That the Revised Estimates for 1934-35, as now amended, be approved."

"That the Budget for the pay of Government Officers for 1935-36 be approved."

SUBJECT 72.—*Proposed inclusion of Pulgaon under C.P. No. 1 tenderable places.*

The *President's* suggestion was agreed to. *Mr. N. M. Deshmukh* stated that the agriculturists, cotton dealers and the Municipality of

Pulgaon were losing from Rs. 50,000 to Rs 80,000 annually as Pulgaon, unlike Wardha, had not been recognised as a C.P. No. 1 tenderable station, instead of a C.P. No. 2 station as it now was.

As they were on the same side of the river Wardha, and the quality of [illegible] aw no reason [illegible] Association [illegible] of Wardha. [illegible] to be tested at the Technological Laboratory, but the East India Cotton Association relied on the valuation of graders and did not want tests at the Laboratory, even though he pointed out from actual experience that the reports from the latter were more reliable than reports from the former. He therefore moved the following resolution :—

"That the East India Cotton Association be requested to place the Pulgaon cotton as C.P. No. 1."

Rao Bahadur G. R. Kothare seconding the resolution said that the position was anomalous. Pulgaon cotton was classed as C.P. No. 2 while sold there, but when carted to Wardha it was classed as C P No. 1. This resulted in the migration of a fair quantity of this cotton every year to Wardha. Mr. Deshmukh's proposal to decide the classification of Pulgaon on the results of Laboratory tests was a reasonable one and should be accepted by the East India Cotton Association. *Mr. Chunilal B. Mehta* said that the question was of marketing and not of growing and had received the careful consideration of the East India Cotton Association. The trade thought the Wardha cotton superior to Pulgaon and paid higher prices for it. Laboratory tests were not always uniform and, on the contrary, the graders were sometimes able to judge cotton much better than tests at the Laboratory. The passing of a resolution amounts to pressure being brought on the East India Cotton Association; it was enough if a copy of the discussion was sent to the Association for information. *Mr. M. D. Williams* agreed that the matter be left to the East India Cotton Association to deal with. *Mr. Mahta* confirming Mr. Deshmukh's statement regarding the quality of Pulgaon cotton said that though Pulgaon itself grew as good a cotton as any part of the Central Provinces, it was easily accessible to inferior Berar cotton and for this reason was classed as C.P. No. 2. *Rao Bahadur M. G. Deshpande* testified to the fact that the cotton grown at Pulgaon was as good as C.P. No. 1, but the cotton carted from the other side of the river was however inferior. *Mr. Ritchie* explained that it was because Berar cotton came to Pulgaon that Pulgaon was classed as C.P. No. 2 even though the cotton grown on Pulgaon area was in reality C.P. No. 1. *Rao Bahadur Kothare* asked if as stated, Arvi being close to C.P. No. 1 area there was anything to prevent Berar cotton being taken to Wardha to fetch a better price, and when such cotton from Arvi was taken to Wardha, the same passed as C.P. No. 1. *Mr. N. M. Deshmukh* fully agreed with the suggestion of Mr. Chunilal B. Mehta and begged leave to withdraw his resolution. *It was decided to send a copy of the discussion to the East India Cotton Association.*

SUBJECT 73.—*Proposed New Agricultural Research Schemes—Scheme for defibration of cotton seed in the Bombay Presidency.*

The Report of the Agricultural Research Sub-Committee recommending the provision and installation at Palej of the defibrating machine from the funds of the Indian Central Cotton Committee at an initial outlay of Rs. 3,700 and recurring annual expenditure of Rs. 1,750 for a period of three years and accepting the kind offer of the *Vice-President* for the free supply of seed and power as required was adopted.

SUBJECT 74.—*Progress Report on Plant Puller Propaganda Scheme in Surat and Broach Districts.*

The Report of the Agricultural Research Sub-Committee was adopted.

SUBJECT 75.—*Supply of N. R. and Cambodia cotton seeds in the Southern Division of the Bombay Presidency.*

The Secretary's note was recorded.

SUBJECT 76.—*Draft Rules under the Central Provinces Cotton Market Act.*

Rao Bahadur Kothare, while thanking the Government for amending the Cotton Market Rules, said that the attention of the local Government should be drawn to the need for sending such matters sufficiently early to enable the Committee to send its opinion before they were enacted. This was seconded by *Mr. Burt* and accordingly it was decided that the local Governments be requested to send such rules to the Committee early enough to permit of their discussion at the full meeting and an opinion offered.

SUBJECT 77.—*Draft Rules under the Madras Commercial Crops Markets Act.*

The Secretary's note saying that the Madras Government propose to adopt 28 lbs. maund weight and the Bombay candy of 784 lbs. as standard units for all cotton transactions in the Presidency was recorded.

SUBJECT 78.—*Universal Standards for Indian Cotton—Progress Report.**

Seth Isserdas Varindmal complained that since last he served on the Standards Sub-Committee, the Local Sub-Committee had changed its constitution in such a way so as to exclude Karachi members when Bombay cottons were to be considered. He saw no reason why Bombay alone should have a hand in the preparation of all standards and not Karachi. *Mr. Chunilal B. Mehta* explained that Bombay unlike Karachi was interested in all cottons and had therefore to be on the Standards Sub-Committee when Sind and Punjab cottons as well as other cottons were being dealt with. The Indian Central Cotton Committee had met the requirements of Karachi by providing representation for them when standards of cottons in which they traded were being prepared. In reply

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* Appendix VIII (page 128).

to Seth Isserdas Varindmal's remark that Karachi might be left alone to pass its own standards, *Mr Chunilal B Mehta* explained that the Standards Sub Committee was set up by the Indian Central Cotton Committee and the Imperial Council of Agricultural Research and not by the East India Cotton Association *Mr Burt* explained that the reason the Committee took an interest in this matter was the divergence in the same standard prepared by Karachi and Bombay which the Committee was to reconcile Two representatives each of the Karachi and East India Cotton Associations, with an independent member nominated by the Imperial Council of Agricultural Research constituted the Standards Sub Committee Two series of standards were prepared in India, one at Bombay and the other at Karachi and it was intended to secure uniformity As for a representation of the growers' interest on the Standards Sub Committee, the matter might be referred to the Sub Committee, although he himself saw no need for it, for consideration as to whether the membership of the Sub Committee might not be limited to recognized associations *Mr Travers* urged that as all Karachi cottons were dealt with under the rules of the East India Cotton Association it would be difficult to get it to accept standards which they had no hand in preparing Surely the East India Cotton Association would not grudge Karachi having permanent representation when the Karachi market became larger The *Vice President*, referring to Seth Isserdas Varindmal's contention why Karachi should be made to invite Bombay for the preparation of Karachi standards, when the latter did not invite the former for the preparation of Bombay standards pointed out that Karachi had of its own accord sought Bombay s help in the preparation of its own standards for Sind, Punjab and Bengal cottons Further, Bombay had been preparing standards long before Karachi had any The idea was not to set up competition between the two centres but to utilise local expert knowledge in the preparation of standards In the case of Sind cottons, representatives of the Karachi and Bombay associations would meet But in the case of, say, Berar or Central Provinces cotton the Local Sub Committee decided only Bombay and one or two growers and one permanent local middleman nominated on the recommendation of the Director of Agriculture would be called upon to have a hand in the matter While welcoming any definite constructive proposals, he advised Seth Isserdas Varindmal to fundamentally revise his ideas of universal standards *Mr Travers* thought a middleman and a grower would serve the purpose better than two growers *Mr Y G Deshpande* supported the Local Sub Committee's recommendations, common standards for the whole of India were really beneficial and on that score must be cheerfully accepted by all

The following resolution proposed by the *President* and seconded by *Mr Chunilal B Mehta* was carried —

RESOLUTION—"That the Indian Central Cotton Committee confirms the action taken by the Local Sub-Committee in connection with the adoption of Universal Standards for Indian cottons and that the procedure indicated in paragraph 6 of the Secretary's note be approved."

SUBJECT 79.—*Extension of cotton cultivation in Bengal.*

Mr. Guha regretted that no attempt had been made to grow staple cotton in Bengal. Considering the fact that Bengal once produced the best cotton in India from which the famous Dacca muslins were made he moved the following resolution, seconded by *Mr. Nizam-ud Din Hyder :*

"That the Committee should grant to Bengal a small grant of Rs. 3,000 per annum for five years to find out whether staple cottons can be grown there and that an officer be appointed to make a survey in this respect."

Dr. Burns proposed that the resolution be referred to the Agricultural Research Sub-Committee for consideration. *Mr. Hutchinson* drew attention to the annual report of the Department of Agriculture, Bengal, for 1925-26 cited in the secretarial note, and proposed that a piece of the Dacca muslin offered by the Nawab Bahadur of Dacca be obtained and tested at the Technological Laboratory and results placed before the Agricultural Research Sub-Committee. He was anxious to know the fibre properties of the cotton used in Dacca muslin. The *President* suggested referring the matter to the Agricultural Research Sub-Committee for report and Mr. Guha be invited to attend its next meeting when the question was discussed. This was agreed to.

SUBJECT 80.—*Examination of the possibility of using short staple Indian cotton for the manufacture of artificial silk.*

Lala Shri Ram said that the Japanese boycott of Indian cotton had shown the extreme importance of finding out other uses for the Indian short-staple cotton.

Mr. Burt said that the proposal was that the most modern type of artificial silk and its suitability to India should be studied. This type of rayon resembled cotton in many respects; other countries had begun to do it, and if India did not follow their example and make staple fibre, she would soon be importing it.

The recommendation of the Technological Research Sub-Committee that a sum of Rs. 30,000 be sanctioned for examining the practicability of manufacturing artificial staple fibre from Indian short staple cotton was adopted.

SUBJECT 81.—*Scheme for the propagation of C. 402 cotton in the Hardoi and neighbouring districts of Lucknow and Sitapur, United Provinces.*

The Report of the Agricultural Research Sub-Committee recommending that it should be considered by the Standing Finance Sub-Committee in relation to the financial position was adopted.

SUBJECT 82.—*Proposal for provision of fumigation facilities at Calcutta.*

Mr. Guha urged that the Government of India be approached to provide facilities for fumigation of American cotton at Calcutta on economic grounds. *Mr. Burt* thought that the expenditure involved

would be excessive for the small consumption of cotton in Calcutta, and the Government of India would naturally desire to see that the scheme was self supporting as at Bombay The *President* confirmed the views of the previous speaker and thought their case too weak to make any impression on the Government at present *Mr Y G Deshpande* said that Indian mills should make greater use of Indian long staple cotton, in view of the efforts that are being made to grow it in Sind and elsewhere.

SUBJECT 83 —*Grant of honorarium for preparation of Indices of Minutes of the Committee and its Sub Committees*

The *President* proposed the following resolution —

RESOLUTION—"That the Secretary be authorised to grant honoraria to the staff of his office for the preparation of indices of Minutes of meetings of the Indian Central Cotton Committee and its various Sub-Committees up to a maximum of Rs. 50 for each year's Minutes."

This was seconded by *Rao Bahadur Kothare* and carried

SUBJECT 84 —*Proposed introduction* of a common unit for the purchase of seed cotton throughout India*

The *President* proposed the following resolution —

RESOLUTION—"That the Indian Central Cotton Committee desires to express its thanks to the Governments of Bombay, Madras, Punjab, United Provinces and Central Provinces for the steps taken by them to give effect to the Committee's recommendations for the introduction of common units of weight for cotton transactions. The Committee would further urge on the Bombay Government the desirability of standardising also the Bombay candy of 784 lbs. as a unit of weight in the Presidency, particularly as this unit is being adopted in practically all the other major cotton-growing provinces in India."

This was seconded by *Mr Chunilal B Mehta* and carried

SUBJECT 85 —*Broadcasting† of Commercial News on cotton*

Mr N M Deshmukh moving the following resolution deplored the discontinuance of commercial news which the Bombay Broadcasting Station had hitherto transmitted and which was of great value to the agriculturist in the up country He appealed to the Indian Central Cotton Committee to support the East India Cotton Association's representation on this matter —

RESOLUTION—"That the Indian Central Cotton Committee requests the Government of India to resume the broadcasting of all commercial news connected with cotton in the mornings particularly through the Bombay Radio Station."

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* Appendix IX (page 128) † Appendix X (page 129)

Rao Bahadur Kothare wanted to know how in the absence o' broadcasting could Rule 86 of the Central Provinces Cotton Market Act be expected to function, in the absence of previous day's closing rates? *Mian Nurullah* deprecated the action of the Government of India especially at the time when the Punjab Government was launching a campaign of broadcasting the latest market news to villages. The *Vice-President* stressed the importance of broadcasting in India for the dissemination of important items of news, such as cotton news. It showed in a bad light the motives of the Government of India which were apparently merely for a new source of revenue. Briefly stated the action of the Government amounted to this. They had discontinued the broadcasting owing to the loss of revenue to the Telegraph Department from various interests who used to get the news by telegrams from Bombay. The same department which was amassing crores of rupees from postal, telephone and telegram charges could hardly be justified in curtailing broadcasting because of a slight loss in telegraph revenues. Apparently the Government had not considered the amount of loss on experiments incurred by Bombay investors before they took it over and simply looked upon it as a money-making machine. He insisted that middle class up-country merchants and *zamindars* owned sets mainly for the purpose of getting cotton prices. He was strongly of the opinion that commercial quotations ranked first before any other news on the radio programme. He knew of cases when important telegrams were delayed by subordinate servants of the Telegraph Department for gratuities on *Diwali* days. He urged the President to appraise the authorities at Simla of the urgent need for the restoration of the broadcasting system. *Mr. M. D. Williams* supported the proposal from his experience of the usefulness of broadcasting commercial news in the Punjab and advocated the broadcasting of Karachi prices along with Bombay prices, as this would be of great service to cotton interests of that province. *Messrs. Plummer and Isserdas Varindmal* supported the resolution. *Sardar Sampuran Singh* was also of the same opinion and stigmatised the Government's action for revenue purposes as a petty one. *Mr. Chunilal B. Mehta* pointed out that telegrams were undependable as they were often received too late to be of use. *Messrs. Salimath and B. S. Patel* likewise testified to the eagerness of the farmers to get the latest radio news before they sold their cotton. *Mr. Y. G. Deshpande* stressed the importance of radio commercial news to villages cut off from telegraph communication and to the general scheme of village uplift. *Dr. Burns* stated that in his annual report this year he had deliberately drawn the attention of the Government of Bombay to the usefulness of radio. *Mr. Ritchie* was also in favour of broadcasting and would like to see receiving sets in all the Central Provinces markets. *Sardar Rao Bahadur Bhimbhai R. Naik* thought that broadcasting would save the Indian peasantry from exploitation by middlemen and he failed to understand such action from a Government who pretended to be their well-wishers. The action of the Government, he thought, jeopardized the interest of the cultivator who was ensured fair prices for his cotton by the daily publication of central market prices. *Mr. Nizam-ud Din Hyder*

likewise urged the restoration of the radio system, especially in view of the Hyderabad Government having in contemplation a broadcasting scheme for rural uplift work. *Mr. Sane* from his own experience of villages in the Baroda State was convinced that broadcasting sets were mainly used for commercial news, without which these sets were considered to be of little use.

SUBJECT 86.—*Proposed new Agricultural Research Schemes—Plant Puller Propaganda Scheme in Baroda.*

The Report of the Agricultural Research Sub-Committee, approving in general the scheme but suggesting that the pay of the Graduate Assistants should not exceed Rs. 70 per mensem and that after the first year of intensive propaganda a large number of *Kamgars* be employed instead of the more expensive fieldmen, and recommending the adoption of the scheme at an estimated total cost of Rs. 9,380 for two years, was adopted.

SUBJECT 87.—*Proposed new Seed Distribution and Extension Schemes—Scheme for the marketing of Verum cotton.*

The Report of the Agricultural Research Sub-Committee recommending an additional grant of Rs. 1,35,022 spread over a period of 5 years and 2 months in addition to the grant already made at the last meeting of the Committee was adopted.

The *President* thanked the members for the courtesy and patience and the extreme goodwill shown to him which had enabled the Committee to get through the heaviest agenda they ever had in record time.

Sardar Rao Bahadur Bhimbhai R. Naik proposed a very hearty vote of thanks to the President.

This was carried with acclamation.

R. D. MIHRA,

Publicity and Propaganda Officer.

RESOLUTIONS.

Appointment of cotton growers' representatives on the Committee to the Board of Directors of the East India Cotton Association.

1 "That the existing three members be re-elected".

Representation of cotton interests in Karachi on the Indian Central Cotton Committee.

2 "That the Indian Central Cotton Committee accepts Mr. Jenkins' proposal as contained in the Secretary's Supplementary note".

Resignation of Mr. D. F. Kapadia, Assistant Technologist, Technological Laboratory.

3 "That a Sub-Committee consisting of the President, Vice-President, Khan Bahadur Sardar Habibullah and Rao Bahadur M. G. Deshpande be appointed to examine the allegations made by Mr. D. F. Kapadia and to report to the next meeting of the full Committee".

Licensing of gins and presses.

4 "That the Indian Central Cotton Committee desires to remind the Government of India of its Resolution passed at its meeting on the 29th August 1933 and wishes to draw the attention of Government to the dangerous increase in the evil of watering of cotton which calls for immediate action in the interest of Indian cotton".

Cultivation of improved varieties of cotton in the Barrage areas of Sind.

5 "That the Indian Central Cotton Committee endorses the resolution of the Special Sub-Committee regarding the establishment of a compact block of long staple cotton in Sind and approves generally of the proposals of the Chief Agricultural Officer in Sind".

Campaign for extension, seed distribution and marketing of pure Sind-American cotton.

6 "That the various suggestions of the Sind Cotton Committee be referred back to the Chief Agricultural Officer in Sind for reconsideration by the Sind Cotton Committee with the object of ascertaining to what extent any of the suggestions made could be given effect to".

Half-yearly Report of the Publicity and Propaganda Officer.

7 "That the Report of the Publicity and Propaganda Officer be adopted".

Report on the Fumigation of American Cotton.

8 "The Indian Central Cotton Committee approves of the action taken by the Standing Finance Sub-Committee in regard to the question of the reduction of the Bombay Port Trust share of fumigation charges and the revision of the pay and allowances of the fumigation staff."

"The Indian Central Cotton Committee requests the Government of India to sanction a rebate of eight annas per square bale and five annas per round bale on the fumigation fee paid on American cotton fumigated at square bale and round bale rates during the fiscal year 1933-34."

"The Indian Central Cotton approves of the action taken by the Local Sub-Committee in recommending to the Government of India the abolition of the special fee of Rs. 10 for sample bales".

Report of the Cotton Forecast Improvement Sub-Committee.

9 "That the Report of the Cotton Forecast Improvement Sub-Committee be adopted".

The Institute of Plant Industry, Indore—Future Policy.

10 "This Committee resolves that the Governing Body of the Institute of Plant Industry, Indore, be informed—

(1) that the representation of the Indian Central Cotton Committee on the Governing Body each year should be in proportion to the contributions received in the preceding year from the Indian Central Cotton Committee and the States taking an interest in the Institute,

(2) that the accounts of the Institute should be audited by the Auditor General as long as contributions from the Indian Central Cotton Committee continue,

(3) that the Indian Central Cotton Committee will contribute to the Institute for a period of three years from 1935–36 a minimum sum of Rs. 85,000 per year for purposes of research work in cotton—the programme for such work for each year to be approved by the Indian Central Cotton Committee. The Committee will also be prepared to consider applications for supplementary grants for cotton research on the approved programmes, if necessary ".

Meeting of the Indian Central Cotton Committee at Indore.

11 " That the Resolution of the Committee passed at its meeting in July 1928 requiring a cold weather meeting to be held at Indore once in three years be rescinded. Meetings will be held at Indore as and when the Committee considers it desirable to do so ".

Progress Report of the Director, Technological Laboratory.

12 " That the Progress Report of the Director, Technological Laboratory, be approved ".

Report of the Technological Research Sub-Committee.

13 " That the Report of the Technological Research Sub-Committee be adopted ".

Report of the Standing Finance Sub-Committee.

14 " That the Report of the Standing Finance Sub-Committee be adopted."

" That the Revised Estimates for 1934–35, as now amended, be approved."

" That the Budget for the pay of Government officers for 1935–36 be approved ".

Universal Standards for Indian cotton.

15 " That the Indian Central Cotton Committee confirms the action taken by the Local Sub-Committee in connection with the adoption of Universal Standards for Indian cottons and that the procedure indicated in paragraph 6 of the Secretary's note be approved ".

Grant of honorarium for preparation of indices of Minutes of the Committee and its Sub-Committees.

16 " That the Secretary be authorised to grant honoraria to the staff of his office for the preparation of indices of Minutes of meetings of the Indian Central Cotton Committee and its various Sub-Committees up to a maximum of Rs. 50 for each year's Minutes ".

Proposed introduction of a common unit for the purchase of seed cotton throughout India.

17 " That the Indian Central Cotton Committee desires to express its thanks to the Governments of Bombay, Madras, Punjab, United Provinces and Central Provinces for the steps taken by them to give effect to the Committee's recommendations for the introduction of common units of weight for cotton transactions. The Committee would further urge on the Bombay Government the desirability of standardising also the Bombay candy of 784 lbs. as a unit of weight in the Presidency, particularly as this unit is being adopted in practically all the other major cotton growing provinces in India ".

Broadcasting of Commercial News on cotton.

18 " That the Indian Central Cotton Committee requests the Government of India to resume the broadcasting of all commercial news connected with cotton in the mornings particularly through the Bombay Radio Station ".

Report of the Agricultural Research Sub-Committee.

19 " That the Report of the Agricultural Research Sub-Committee be adopted ".

APPENDIX I

SUBJECT 9 —*Licensing of Gins and Presses.*

Secretary's Note.

This subject was last considered by the Committee at its meeting held in August 1933 when the following resolution was passed —

RESOLUTION 1.—"That the Indian Central Cotton Committee reaffirms its resolution of 1924 recommending to the Government of India that the Cotton Ginning and Pressing Factories Act should contain a clause providing for the licensing of gins and presses and that this clause should be made operative in each province by resolution of the Provincial Legislative Councils."

The resolution of 1924 referred to was as follows —

RESOLUTION 2 [illegible]
tion to the [illegible]
members of [illegible]
and to the [illegible]
June 1924, *is convinced that the licensing of gins and presses will provide the only remedy for mixing in the Punjab that is likely to have immediate and practical effect*

The Committee also wishes to impress upon the Government of India the desirability *of putting the Gins and Presses Bill before the Legislature with as little delay as possible*"

A copy of the discussion* on the subject at the August 1933 meeting of the Committee is attached.

In compliance with the resolution passed the Government of India were addressed in the matter but their final orders are still awaited In the meanwhile the following further developments have taken —

(a) A representation (Enclosure I) was received in March last from about 40 leading [illegible]

(b) In March last the Central Provinces Board of Agriculture passed the following resolution —

[illegible]

It was stated at the meeti[illegible] staple cotton was to reap the full benefit of an enhanced pre[illegible] prevent adulteration of his produce and to check any [illegible] to bring into disrepute the cotton of any tract

(c) The Bombay Millowners' Association in June last and the Bombay Chamber of Commerce in July last addressed the Government of India suggesting the licensing of ginning and pressing factories by an amendment of the Cotton Ginning and Pressing Factories Act, with the object of preventing watering and other malpractices in the cotton trade Copies of their letters to the Government of India are attached (Enclosure II and I[illegible]
(a) above were consi[illegible]
last and it was deci[illegible]
resolution in consult[illegible]
the East India Cott[illegible]
Chamber of Comme[illegible]

[illegible] Chamber and the Bombay Chamber of Commerce and the Deputy Chairman and Secretary of the Bombay Millowners Association, and

*Not printed—*Vide* Minutes—27th meeting—I C C C.—page 12.

the following draft of a resolution embodying the decision arrived at was prepared for adoption by the Indian Central Cotton Committee at its forthcoming meeting:—

"The Indian Central Cotton Committee desires to remind the Government of India of its Resolution No. 1 passed at its meeting on the 29th August 1933 and wishes to draw the attention of Government to the dangerous increase in the evil of watering of cotton which calls for immediate action in the interest of Indian cotton."

The Ahmedabad Millowners' Association were not able to send a representative but they signified by wire their agreement with the object of the conference.

(d) Messrs. Volkart and Ralli Brothers reported to the Committee the prevalence of the malpractices of the watering of cotton, the mixing of seed with lint, the cheating of cultivators by the payment of lower prices for their *kapas* after carts had been unloaded in factory compounds and by the use of incorrect weights, and these reports were duly forwarded to the Government of India with the object of ascertaining from them what they proposed to do to prevent these and similar abuses.

Enclosure I.

THE CHAIRMAN, Bombay.

Indian Central Cotton Committee,

Bombay.

Dear Sir,

We beg to draw your attention to the following for serious consideration and necessary action.

The malpractice of watering raw cotton at the time of pressing is increasing day by day. It has been doing immeasurable harm to the cotton trade. Indian cotton has ceased to be an investment and watering has become one of the dangerous factors of depreciating its price. Little profit expected to be gained in weight vanishes if the cotton is not soon disposed of after its arrival in the selling market and in addition its colour and class is spoiled which affects its selling price. The fibre of such cotton begins to deteriorate and its quality injured the longer it remains unconsumed. Due to this deterioration its reputation is spoilt in world market.

If you look to the working of the season 1927-28 you will realise that the trade suffered to the extent of more than a crore of rupees owing to this malpractice of watering when ready Oomra cotton was sold at Rs. 45 per candy below Contract rate.

Under the circumstances, it is the considered opinion of the undersigned that it would be a service to the trade if this evil practice of watering raw cotton is rooted out; and with a view to attain this object, we submit, you should approach the Indian Government to have the Cotton Ginning and Pressing Factories Act amended to the effect that any press owner who waters or allows or assists in watering raw cotton before pressing will be liable to fine or have his license suspended temporarily or permanently.

We beg to remain,
Yours faithfully,

KILACHAND DEVCHAND & CO., LTD.,
BHAIDAS CURSONDAS & CO.,
VARJIVANDAS MOTILAL,
P. CHRYSTAL & CO.,
BREUL & CO.,
NISSHO CO., LTD.,
LANGLEY & CO.,
AMERSEY DAMODAR,
DRENNAN & CO.,
RALLI BROTHERS, LTD.,
RODOCANACHI & CO.,
VOLKART BROS.,
GILL & CO.,
THE PATEL COTTON CO., LTD.,
VALJI LADHA & CO.,
VIRJI LADHA & CO.,
KHOJA MITHABHAI NATHOO,
HABIB & SONS,
NARSU NAGSU & CO.,
SHROFF COOPER & CO.,
SIVKARAM RAMCHANDER,
HIRJI BHARMAL,
KOTAK & CO.,
HANSRAJ HARJI & SONS,
RAMDAS DOSSA & CO.,
ARJAN KHIMJI & CO.,
KHIMJI VISRAM,
BACHHRAJ & CO., LTD.,
MANJI BHIMJI,
PIROJSHAW R. VAKHARIA & CO.,
GOSHO KABUSHIKI KAISHA,
R. KHIMJI BROTHERS,
TOYO MENKA KAISHA, LTD.,
JAPAN COTTON TRADING CO.

Enclosure II.

Copy of letter dated the 20th June 1934, from the Secretary, Bombay Millowners Association, Bombay, to the Secretary to the Government of India Department of Education Health and Lands Simla

SUBJECT —*Prevention of watering and other malpractices in the cotton trade*

Committee on various occasions, and it is understood that in accordance with the views expressed by representative trade organisations, the Indian Central Cotton Committee recommended to Government last year that the Cotton Ginning and Pressing Factories Act should contain a clause, providing for the licensing of gins and presses, and that this clause should be made operative in each province by resolution of the Provincial Legislative Council It would appear that the representations made by the Indian Central Cotton Committee are under Government's consideration, and my Committee, therefore, desire to take advantage of the opportunity to place before Government in some detail their view of the case

2 It will be remembered that the MacKenna Cotton Committee (1917 18), in paragraphs 226 and 228 of their Report, recommended *inter alia* that all ginning and pressing factories should be licensed , that such licenses should only be granted on certain conditions , and should be withdrawn for breach of those conditions and on proof of such malpractices as damping, mixing and adulteration The question was subsequently examined by the Indian Central Cotton Committee, and though they do not appear to have favoured an all India system of licensing gins and presses, they seem to have made it quite clear
licensing if th
and Pressing
At a later date
that they were *convinced that the licensing of gins and presses ...*
for mixing in the Punjab "

3 ... Factories Bill, which was introduced in the following
was not included, presumably in order not to
the Assembly The desirability of counteracting
found to exist by the MacKenna Committee has always been admitted by Government, but what they wanted the House to do when the Bill was introduced was merely to agree in principle that legislation was required to tackle these abuses and malpractices, and to enable the trade to protect itself and
... malpractices severely injured the reputation of
ing an adequate price for his
now been in operation for
more than 8 years and my Committee have been endeavouring to find out whether the objects which Government had in view when the Bill was introduced have since been realised

4 From representations received from member mills, and the results of the investigations conducted by the Indian Central Cotton Committee on various occasions, it would appear that the existing provisions of the Cotton Ginning and Pressing Factories Act and the Cotton Transport Act have not been adequate to realise fully the objects Government had in view and that the undesirable practices which existed when the MacKenna Committee conducted their investigations obtain even to day My Committee, therefore, consider that in the interests of all concerned, the provisions of the Act should be reinforced They have bestowed considerable thought to the problem and are convinced that the Cotton Ginning and Pressing Factories Act should be amended at the earliest

of licensing, but are convinced that adequate safeguards can be ...
innocent parties being unfairly penalised

Bombay, March 1934.

THE CHAIRMAN,
Millowners' Association, Bombay.

Dear Sir,

We beg to draw your attention to the following for serious consideration and necessary action.

The malpractice of watering raw cotton at the time of pressing is increasing day by day. It has been doing immeasurable harm to the cotton trade. Indian cotton has ceased to be an investment and watering has become one of the dangerous factors of depreciating its price. Little profit expected to be gained in weight vanishes if the cotton is not soon disposed of after its arrival in the selling market and in addition its colour and class is spoiled which affects its selling price. The fibre of such cotton begins to deteriorate and its quality injured the longer it remains unconsumed. Due to this deterioration its reputation is spoilt in the world market.

If you look to the working of the season 1927-28 you will realise that the trade suffered to the extent of more than a crore of rupees owing to this malpractice of watering when ready Oomra cotton was sold at Rs. 45 per candy below Contract rate.

Under the circumstances, it is the considered opinion of the undersigned that it would be a service to the trade if this evil practice of watering raw cotton is rooted out; and with a view to attain this object, we submit, you should approach the Indian Government to have the Cotton Ginning and Pressing Factories Act amended to the effect that any press owner who waters or allows or assists in watering raw cotton before pressing will be liable to fine or have his license suspended temporarily or permanently.

We beg to remain,
Yours faithfully,

Signed by more than 40 leading cotton merchanting Firms.

Enclosure III.

Copy of letter No. 1868/276, dated the 13th July 1934, from the Secretary, Bombay Chamber of Commerce, Bombay, to the Secretary to the Government of India, Department of Education, Health and Lands, Simla.

SUBJECT.—*Licensing of Ginning and Pressing Factories.*

I have the honour to inform you that the Chamber has been favoured with a copy of the letter addressed by the Bombay Millowners' Association to the Government of India on the 26th June 1934 urging that the Cotton Ginning and Pressing Factories Act should be amended at an early date so as to provide Local Governments with powers to introduce a system of licensing of gins and presses. My Committee desire strongly to support the above representation.

2. In addressing the Indian Central Cotton Committee in 1931 the Chamber expressed the opinion that the application of the Cotton Ginning and Pressing Factories Act needed severely tightening up if that piece of legislation was to prove effective and have the desired effect of preventing the many abuses which, it was alleged, took place either in the ginning factory or in the press house. The Committee had in mind at that time the compulsory licensing of gins and presses and in again addressing the Indian Central Cotton Committee in 1932 they stated that they were strongly of opinion that the time had come for introducing legislation to this end without which they thought it would not be possible to overcome the difficulties and malpractices which had hampered the trade for so long.

3. My Committee consider that the move for increased consumption of Indian cotton by Lancashire lends added force to the need for the proposed legislation which they trust will be introduced at an early date.

Supplementary Note

The following letter has been sent by the Indian Merchants Chamber, Bombay, to the Government of India on the above subject —

"*Copy of letter No 2173, dated the 23rd August 1934, from the Secretary, Indian Merchants' Chamber, Bombay, to the Secretary to the Government of India, Department of Education, Health and Lands, Simla*

SUBJECT —*Re Amendment of the Indian Cotton Ginning and Pressing Factory Act providing for the licensing of Gins and Presses to prevent watering and other malpractices in the Cotton Trade.*

The attention of this Chamber has been drawn by the Indian Central Cotton Committee and the Bombay Millowners' Association to complaints regarding malpractices such as watering, etc, said to be resorted to by some cotton gins and presses in various parts of the country, and I am directed to address Government in the matter as under.

They would urge, therefore, that in no circumstances any legislation on the subject should be passed until the relevant bill was circulated for public opinion and until genuine and *bona fide* difficulties of owners of gins and presses had been adequately realised and provided for"

APPENDIX II

SUBJECT 12.—*Cultivation of improved varieties of Cotton in the Barrage areas of Sind—Note by Chief Agricultural Officer in Sind*

Secretary's Note.

The Indian Central Cotton Committee at its 28th meeting held on the 30th January

policy to be adopted in Sind in regard to the kind of cotton that should be encouraged in the Barrage areas, and unanimously passed the following resolution —

"In view of the danger to which cotton growers in India would be exposed should a further increase take place in the production of short staple *desi* cotton in Sind, and of the urgency of encouraging the production of long staple cotton in all suitable tracts in India, the Committee is convinced that steps should be taken without delay to establish a compact block of long staple cotton in the Barrage areas of Sind This calls for co ordinated effort, including legislation if necessary, intensive seed supply org[illegible] table to local conditions
A s[illegible]
fac[illegible]
to produce 300 000 acres of cotton annually when fully developed [illegible] respectfully urges the Government of Bombay to take immediate action to this end before such problems, as mixing, become serious and while conditions are still favourable"

The resolution was submitted to the Government of Bombay for necessary action The attached letter together with the enclosed printed copy of the *Chief Agricultural Officer's* note on the resolution now received from the Government of Bombay is for consideration

The Chief Agricultural Officer in Sind has exhaustively examined in his note the advantages of and the practical difficulties in giving effect to the resolution. They may be briefly stated as follows :—

(*a*) It is admitted that of all places in India, Sind offers the greatest scope for the production of long-staple cotton, the prospective demand for which from home and abroad is encouraging (Paragraph 2).

(*b*) As regards the stipulated *compact block of* 300,000 *acres* it is pointed out that to have such a compact block of so extensive an area of cotton in Sind the whole of the cotton area in Thar Parkar district i.e., the areas fed by the Northern and Southern *Jamrao, the Mithrao and the Khipro* Canal systems of the Eastern Nara Canal System, has to be set aside (Paragraphs 6, 7 and 8) for long-staple cotton cultivation, as the cotton areas in other districts are neither so extensive nor so suitable as the area in this district for the purpose (Paragraphs 4 and 5).

(*c*) The reservation of a compact block for long-staple cotton means that pressure should be brought upon the present *deshi* cotton growers of this district to give up *deshi* (Paragraphs 3, 8 and 9). Thus to compel the growers to grow a particular variety of cotton is a measure which the Committee had not favoured in the Punjab. How then is it good for Sind (Paragraph 10)? Mr. Jenkins' personal opinion is that it would on the whole be good for Sind (Paragraph 11).

(*d*) From an analysis of the present *deshi* and American cotton areas in the talukas of Thar Parkar district it is concluded that a compact area of 1¾ lakhs acres only, as indicated in the map, could, with advantage to growers, be set aside in this district for long-staple cotton (Paragraph 12).

(*e*) As to the legislative measures to be adopted to control cotton cultivation in the compact block, the Cotton Transport Act will not be effective on account of the absence of natural boundaries and lack of regular routes of communication in Sind (Paragraph 13). Besides, Sind conditions are unsuitable for a measure like the Madras Cotton Control Act, except as a last resort (Paragraph 14).

(*f*) In any case, the area mentioned in (*d*) does not require to be placed under legislative control (Paragraph 15) provided certain other conditions are satisfied (Paragraph 16).

(*g*) The most important of these conditions requiring immediate attention is the licensing of gins and presses (Paragraph 17). An unobjectionable method of overcoming the opposition of the ginning and pressing industry to licensing is suggested (Paragraph 18).

(*h*) Other matters such as (1) the organization of seed supply, (2) the organization of marketing, (3) the improvement of communications and ginning factory facilities etc. for ensuring the success of the scheme are also discussed (Paragraphs 19 to 23).

(*i*) Paragraph 24 enumerates the actions the Chief Agricultural Officer in Sind would like the Government of Bombay to take on his note.

The Government of Bombay now want the Committee's considered opinion on the various points raised in the Chief Agricultural Officer's note, and particularly those mentioned in paragraphs 10 and 18, viz., (1) why it is considered necessary by the Committee to advocate for Sind a measure which the Committee had not considered suitable for the Punjab, and (2) the possibility of reducing the objectionable aspects of licensing of gins and presses by penalising only definitely fraudulent practices such as watering and false-packing and by introducing a system of "marking" or "branding" cotton bales as a guarantee of their purity and quality. The Government of Bombay also want the Committee to take such action as is deemed suitable on the suggestion contained in paragraph 22 of the note regarding the establishment of direct purchasing agencies within the reserved areas.

From Subject 16 on the Agenda it will be seen that the Sind Cotton Committee has already expressed itself in favour of the early introduction of licensing legislation, and the expediting of seed-organization work. The Committee also decided to refer the question of abolition of the March closure of canals to the Chief Engineer, and to recommend a slight reduction in the assessment on long staple cotton grown in the reserved area instead of a slight increase in the assessment on short-staple cotton, as proposed by the Chief Agricultural Officer.

Copy of letter N... to the Gove... Secretary ... the

SUBJECT —*Cotton Sind Barrage areas Cultivation of Improved varieties of — in,*

for opinion

... Officer in Sind on the Resolution passed by the Special ... e Indian Central Cotton Committee, to consider the ... wider markets for the cotton produced in India, ... compact block of long staple cotton cultivation in the *Barrage areas of Sind.*

The Resolution of the Special Sub Committee of the Indian Central Cotton Committee runs as under —

... danger to which cotton growers in India would be exposed should ...

... ditions ... factory ... be large ... he Com ... n to this ... are still

favourable

Agreement with objects of the Resolution

... objects of the Resolution passed by ... of long ... e of ... rop

Factors affecting policy of cotton development in Sind.

... below the further policy of cotton development ... of long staple ... ing of these

(a) ... Canal Systems has remo ed the main ...

also stated in his Report ... *assured, we hold the view that there is no other part of ... hopeful prospects of the successful cultivation of long staple cotton*". The results of the work of the Agricultural Department in Sind in cotton cultivation on Government research stations, farms and in the districts, confirm fully the correctness of this opinion

(b) The recent boycott of Indian cotton by Japan has forcibly emphasized the unwisdom of any further extension of the cultivation of short staple cottons with a limited and restricted demand. This is most particularly true in such cotton-growing tracts where medium and long staple cottons—which form the bulk of the demand from Indian and Lancashire mills—can be successfully grown, under irrigated conditions. Sind short staple (*deshi*) cotton has a peculiar and special demand for particular spinning purposes, e.g., hosiery manufacture, and, while admitting that the Japanese boycott bore more heavily on other trade varieties of short staple cotton, e.g., Berars and Central Provinces, than on Sind *deshi*, I would like to point out that the restricted nature of the demand for this cotton is in itself a weighty reason for limitation of the production of short staple cotton in Sind. Trade opinion in Karachi has definitely expressed the view that an extension of the Sind short staple (*deshi*) crop beyond 200,000 bales per annum will most probably result in glutting the limited market for this type of cotton and in a consequent reduction in the price to the grower.

(c) The marked additional interest which is being shown in Sind-American (and Egyptian) cottons by spinners in Bombay, Ahmedabad and other mill centres indicates clearly that these classes of cotton fill their requirements satisfactorily and could replace the bulk of the cottons now being imported into India from America, South Africa and Egypt for mixtures for spinning finer counts. Recent trade visitors to Sind from Lancashire have also expressed the opinion that there would be a sure and steady demand for such cottons from Lancashire spinners, if a regular and unmixed supply is available. An extended demand for Sind long staple cotton is therefore assured and, in view of the increasing tendency of Indian mills to "go finer" and the declared policy of Lancashire to use more Indian cotton, may be regarded as permanent.

Difficulty of finding large compact "blocks" in Barrage areas.

3. Turning now to the Resolution of the Special Sub-Committee, I would like to comment firstly on the implications of the term "a compact block of long staple cotton . . . large enough to produce 300,000 acres of cotton annually". To begin with, it seems necessary to remove a misapprehension, which appears to be widely held that the opening of the Lloyd Barrage and Canal Systems has brought large compact tracts of hitherto uncultivated Government waste land under irrigation, which tracts can be sold or leased out in large blocks to cotton-growers on such conditions as Government may think fit to lay down regarding the variety of cotton to be grown, etc. Except possibly in the Right Bank areas, this is not the case. Especially in the main cotton growing tracts, which are confined to the Left Bank, the bulk of the land was in the hands of private owners prior to the opening of the Barrage and "new" lands, i.e., Government waste land, are only to be found in comparatively small areas interspersed among the settled holdings of established zamindars. This being the case, it is clear that the establishment of the "block" of long staple cotton cultivation suggested by the Sub-Committee must involve the co-operation—or the coercion—of large numbers of different landowners and cannot be carried out by the allocation of large compact areas of "new" land on concessionary terms to a few selected cotton-growers.

Annual acreage of cotton required by the Resolution.

4. The Sub-Committee's Resolution calls for the establishment of a large compact "block" of long staple cotton "large enough to produce 300,000 acres of cotton annually." This figure is approximately equal to the total acreage of cotton in Sind before the opening of the Lloyd Barrage and is slightly less than the final forecasted development (in 1951–52) of cotton cultivation on the Eastern Nara Canal Systems, i.e., the Northern and Southern Jamrao, the Mithrao and the Khipro Canals, or, say, the whole of the Thar Parkar district. Where is such an area to be found ?

Thar Parkar District only suitable for early Long Staple Cotton development.

5. At this stage, I desire to make it quite clear that, in my opinion, any large and early development of long staple cotton in Sind must be looked for in the Thar-Parkar district only. Nawabshah and Hyderabad districts cannot be considered in this connection at present partly on account of the more favourable environmental conditions for staple cotton production in the Thar Parkar district, i.e., on the Eastern Nara Canal Systems, and partly on account of the higher standard of cotton cultivation in that

tract In support of this contention, I give below figures for cotton cultivation in Sind (both *deshi* and American) in the past *Kharif* season, i e, in 1933 —

District	*Area under cotton	
	Deshi	American
Thar Parkar	142,000 acres	122 000 acres
Nawabshah	133,000 "	5,000 "
Hyderabad	59,000 "	19,000 "
Total	334,000 acres	146 000 acres

of this district for staple cotton production over Nawabshah or Hyderabad districts has been confirmed by the results of a series of varietal tests of different cottons, conducted throughout Sind on zamindari lands over a number of years by the Agricultural Department

Present cotton area in Thar Parkar District

6 Accordingly, the "block" which the Resolution of the Sub Committee refers to must be looked for in the Thar Parkar district, i e, on the canals comprising the Eastern
in the past *Kharif* season
nd s weekly statement of
1933) on the main canal
systems concerned as under —

Northern Jamrao Canal Southern Jamrao Canal	149,624 acres
Mithrao Canal	70 591 "
Khipro Canal	75,341 "
Total	295,556 acres

This is approximately the cotton acreage which the Sub Committee s Resolution considers should be produced annually in the established "block" of long staple cotton i e, unless any considerable increase in the cotton acreage of Thar Parkar district is possible, the whole of that district would require to be reserved for long staple cotton cultivation to meet the requirements of the Resolution

Forecast of cotton development in Thar Parkar District.

7 The anticipated development of cotton cultivation in the areas irrigated by the Eastern Nara Canal Systems under the Lloyd Barrage Project is as under —

1932–33	246 357 (actual)
1941–42	261,200
1951–52	287,800

It this tract has
con vable area on
the in the *Kharif*
seas acres At a
maximum estimate, after allowing for necessary fodder crops, rice cultivation, fallows and uncultivated holdings, not more than two thirds of this area, i e, 352 200 acres, can possibly be cultivated with cotton which is only about 50 000 acres more than last year s acreage This shows that the full development of the cotton area in this tract has already been practically reached

Implication of Resolution with regard to area

distr
the
only and to prevent " by
in this selected area

* Figures are approximate only.

(b) The total abolition of the March closure of canals by the Irrigation Department. I attach great importance to this condition. Irrigation water for soaking lands for American cotton sowings must be available not later than the 15th March.

(c) The increase of the rate of assessment on *deshi* (short-stapled) cottons grown within the reserved area. This proposal will require examination by the Revenue Department but, to my mind, it would be most effective in achieving the desired object. It would also be justified as *deshi* cotton usually requires more irrigation water than American.

(d) The introduction of control, *i.e.*, licensing of cotton ginning and pressing factories in Sind. This subject is dealt with more fully in paragraphs 17 and 18 below.

If, in addition, a co-operative growers' organization, on the lines of the American Cotton Growers' Exchange, could be established to organise and encourage the co-operative marketing of "mark" cotton and auction sales organised and notified in advance to large buyers, I am convinced that, without any further legislative action, a "block" of long staple cotton cultivation could be established in Sind which would extend as a higher standard of agricultural practice develops in the Province.

Licensing of gins and presses.

17. The past history of the Punjab-American cotton crop furnishes definite evidence that mal-practices in ginning and pressing factories mainly mixing of long staple and short staple varieties, can, within a very short space of time, entirely nullify the advantages of any organised efforts to extend the cultivation and maintain the reputation of staple cottons. The subject of the licensing of gins and presses has been discussed *ad nauseam* in the Indian Central Cotton Committee and many resolutions have been passed by that body urging the importance of such action in the interests of the cotton cultivation of India. But no steps towards licensing have yet been taken in British India although certain Indian States, notably Hyderabad and Indore, have been sufficiently farsighted to adopt the necessary measures to protect their cotton-growers from the losses resulting from selfish malpractices on the part of ginners and pressers. I may mention that the mixing of inferior cotton with the better types of Sind-American cotton in gins and presses in the Barrage areas has already been brought to my notice. Accordingly, I am strongly of the opinion that the licensing of all gins and presses in Sind must take place before any organised attempt to extend long staple cotton cultivation on a "community" basis can have the slighest prospect of permanent advantage to the growers.

**Use of special "marks" in licensed factories.*

18. Licensing of gins and presses is opposed by the ginning and pressing interests largely on two grounds, firstly, that "mixing" of different varieties of cotton may take place outside the factories for which the factory-owner will be liable to be held responsible and, secondly, because there is a trade demand for "mixed" cotton. To overcome both these objections, I would suggest that all factories, both gins and presses, should be licensed, that only definitely fraudulent practices, *e.g.*, watering and false packing, should be scheduled as penal offences and that each licensed gin and press should be provided with one or more Government "marks" or "brands" which they will be entitled to stencil or affix to each bale of staple cotton, above a definite standard of purity, which issues from the factory. The fixing of the "mark" or "brand" will be done on the sole responsibility of the press-owner or of his client, the gin-owner, and misuse of this privilege will be penal under the licensing regulations. If such action is taken, I suggest that the "mark" or "brand" denoting purity of Sind-American cotton from a licensed factory will soon become well known to the trade and that such "marked" or "branded" bales will ultimately command a premium in the market and will build up a sound reputation for the Sind-American crop. These proposals will require detailed examination by all interests concerned, but I am convinced that the only way to check "mixing" in gins and presses is to take such steps to make the sale of "pure" cotton more profitable than it is at present. The cotton growers also will soon realize the advantage of their cotton being marketed as "marked" or "branded" bales and encouragement and stimulus will be given to (a) the cultivation of pure long staple cotton and (b) the sale of lint in place of *kapas* sales, both of which developments are definitely in the interests of the Sind cotton cultivator. All bales from the "reserved area" for long staple cotton in Sind will naturally bear the "mark" or "brand" mentioned above and, in addition, should be stamped with the letters "R.A." to denote that the cotton was grown in the Sind "long staple reservation".

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*Suggested by Mr. R. Fleming, Representative of Lancashire Indian Cotton Enquiry Committee.

Seed supply organization.

in the reserved area. ... cultivators on "credit sale" or paid for by "taccavi" advances which should be liberally given for this purpose in the long staple "block".

Other methods of improving seed supply

...ification" ...d to issue ...n growers ..." which is ... Bombay

Government ginning factory at Mirpurkhas, as proposed in the scheme for the development of agricultural engineering in Sind, submitted to Government under my office letter No. 164 of 1933, dated 26th July 1933, would facilitate and intensify the efforts of the Department in providing good seed of improved cotton varieties to growers in the

distribution and storage of sowing seed, etc ... the "reserved" area scheme The cultivatic... ...han those prescribed by schedule for cultivat... ... be ...ent in Sind This will ...rent provinces and will ... "reserved" area which factors are of considerable importance and value to consumers

Importance of organised marketing.

21. When such schemes for the "community" growing of one or more improved

ditions in the Barrage areas, where the majority of cultivators are obliged, by ... the ... or his district agent, ... deshi ... such a system of sale bears a quite inadequate relation to the intrinsic value of the staple cotton over the short staple varieties when translated into lint prices. In the Barrage areas, under existing conditions of *zamindari* cultivation, *deshi* cotton averages higher yields than the American varieties, and unless the grower of the latter, *i e*, American types, can obtain a reasonable premium for quality, it would not only be unreasonable but unjustifiable to endeavour to compel him to restrict his cultivation *to the staple* cotton varieties. This reasonable premium can only be obtained by improvement and organization of the marketing of staple cotton in Sind

Means of improvement of cotton marketing.

22. In 1927-28 ... into the marketing and finance of cultivators' cotton ... tton Committee which ... n the villages to agents ...ed that Co operative ... better outlet for their produce. I consider that such a step is essential in conjunction with the establishment

of a "reserved area" for staple cotton cultivation. The increase of ginning facilities, which is rapidly taking place in the Barrage areas, will tend to increased competition and earlier disposal of the crop. Further improvement in marketing will result from (*a*) the introduction of sales of "mark" or "brand" bales (reference paragraph 18 above), (*b*) the establishment of auction sales of cotton produced in the "reserved" area, and (*c*) the extension of a system of lint sales among the growers. These matters have already been dealt with briefly in this note. I have only to suggest further that the large potential consumers of Sind-American cotton would benefit—and would assist in accelerating the increase of pure staple cotton cultivation in the Barrage areas—by the establishment of a direct purchasing agency in the "reserved" area and the association of such an agency with co-operative organizations of growers, *e.g.*, cotton sale societies, and with selected ginning factories.

Communications and ginning factory facilities.

23. Finally, the Resolution of the Special Sub-Committee contains a reference to improvement of communications and ginning factory facilities in the "reserved" area. The first of these problems is already receiving the attention of Government and I have only to suggest that, when a scheme for road development has been drawn up and finances for such work provided, the "reserved" area of Thar Parkar district south of the Jodhpur Railway line should receive priority in such improvement of communications as may be undertaken. With regard to ginning factory facilities, the bulk of new factory construction within the past two years has taken place within the boundaries of the "reserved" area and I do not consider that any special action is needed to stimulate further development in this direction at present. On the other hand, it is essential that the future construction of factories in this area should be carefully regulated to correspond with actual requirements otherwise a situation may arise which will be detrimental to the best interests of the growers.

Suggested action to be taken.

24. In conclusion, I beg to suggest that the undernoted action might be taken, if approved, on the Resolution of the Special Sub-Committee :—

(*a*) A copy of this note—or an abstract of the main points dealt with therein—may be referred to the Special Sub-Committee for consideration and opinion. I have recently been appointed a member of this Sub-Committee and would attend to explain or amplify any of the points under consideration. The Special Sub-Committee should be asked to advise in more detail on the methods they have to suggest for giving effect to the terms of their Resolution.

(*b*) The Resolution (and, if considered necessary) a copy of this note should be referred to the Sind Cotton Committee for opinion. The next meeting of this Committee will take place in June 1934.

(*c*) A copy of this note may be sent to the Collector of Thar Parkar district and to the Chief Engineer in Sind for opinion.

(*d*) A reference should be made to the Indian Central Cotton Committee on the point raised in paragraph 10 of this note.

(*e*) The Remembrancer for Legal Affairs may be consulted with reference to the possibility of the application of a modified form of the Madras Cotton Control Act (1932) to prohibit the cultivation of *deshi* cotton in the "reserved" area and to the introduction of legislation for the licensing of gins and presses in Sind [reference paragraphs 14 and 17—18].

(*f*) The Chief Engineer in Sind may be asked to reconsider the possibility of the abolition of the March closure of the irrigation canals or its modification so as to ensure a supply of irrigation water to the "reserved area" from the 15th March onwards [reference paragraph 16 (*b*)].

(*g*) The Revenue Department—and possibly the Finance Department—will have to be consulted with regard to the proposal for the enhancement of the assessment of *deshi*, *i.e.*, short staple cotton cultivation in the "reserved area" [reference paragraph 16 (*c*)].

(*h*) A note on the "Licensing of gins and presses" is attached. This matter must receive early attention [reference paragraph 17].

(*i*) The proposals for the use of Government "marks" or "brands" on bales of pure staple cotton in licensed factories may be referred to the Indian Central Cotton Committee and to cotton trade organizations for opinion [reference paragraph 18].

(j) The Registrar, C[illegible] should be asked to advise on the [illegible]tions for seed supply and for cotton [illegible]" [reference paragraphs 20 and 22]

(k) The proposals contained in the scheme for the development of agricultural engineering in Sind relating to the appointment of an Agricultural Engineer in Sind and the re opening of the Government Ginnery at Mirpurkhas require early action [reference paragraph 20]

(l) The possibility of the introduction of auction sales of cotton in the "reserved area" requires detailed examination The Directors of Agriculture, Bombay and Punjab, may be referred to for advice in this connection based upon similar organization in these Provinces in the past [reference paragraph 22].

(m) The possibility of the establishment of "direct purchasing agencies" within the "reserved area" may be referred to large consumers, *e g*, the Bombay Mill owners Association for opinion

(n) The question of the improvement of communications in the "reserved area" should be examined as soon as the Report of the Government of India's Road Engineer (Mr. Stubbs) on road development in Sind is received

(Signed) W. J JENKINS,
Chief Agricultural Officer in Sind.

Karachi, 17th April 1934.

Note on proposals for Licensing of Cotton Ginning and Pressing Factories

1. [illegible]

"(a) [illegible]

(b) licenses should only be granted on certain conditions and should be withdrawn for breach of those conditions and on proof of such malpractices as damping, mixing and adulteration;

(c) all ginning and pressing factories should be brought under the operation of the Factory Act and required to take out licenses, irrespective of the number of hands employed;

(d) licenses should be withdrawn by the Local Government on the recommendation of the Central Committee (*i e*, the Indian Central Cotton Committee) after the procedure laid down (reference paragraph 229 of Report of Indian Cotton Committee, 1919) has been followed,

(e) suitable penalties should be imposed in the case of factories working without taking out a license or after a license has been withdrawn."

2. The conditions proposed by the Indian Cotton Committee for licensing of gins [illegible]

3. The recommendations of the Central Cotton Committee were circulated to Local Governments for opinion and the replies received, together with a draft Bill for the [illegible]

bring the system of licensing into force unless it was required and no province could bring [illegible]

should be asked to undertake legislation at an early date on the lines of the draft Bill submitted by the Committee for the regulation of gins and presses and for the compulsory marking of bales, maintenance of records of ownership and periodical statistical returns.

4. At the Seventh Meeting of the Central Cotton Committee (January 1924), certain criticisms of the Government of India on the enabling clause for licensing included in the draft bill were considered. These criticisms referred mainly to the definition of specific offences for which licenses might be suspended and to the nature and enforcement of the penalties in connection with suspension. These criticisms had been examined by the Local Sub-Committee of the Central Cotton Committee who recommended that the offences for which licenses may be suspended should be as follows :—

(1) The mixing of two or more separate descriptions of cotton, the mixing of which has been prohibited by notification under clause 8 of the draft bill.

(2) Fraudulent packing (as defined by the East India Cotton Association).

(3) Damping cotton by means of water deliberately applied for that purpose prior to pressing when such damping has been conclusively proved.

The Sub-Committee, in its report, also dealt with judicial procedure in the matter of suspension of licenses, penalties, etc., and pointed out that licensing of gins and presses in the Sudan was already in force on a much more drastic scale than was proposed in the draft bill.

The modifications suggested by the Government of India were accepted as the Local Sub-Committee felt "that it was of the utmost importance that the enabling clause should not be omitted and were agreed that it was better to modify it now .... than to risk it being omitted by Government" (Mr. V. A. Grantham, M.L.C., Vice-President, Indian Central Cotton Committee).

5. Discussions took place between members of the Central Cotton Committee and representatives from the Punjab at Lahore (March 1924) and Simla (June 1924) at which the proposals for licensing of gins and presses—which had aroused considerable opposition in the Punjab—were discussed. A report of these discussions was submitted to the Central Cotton Committee in July 1924, when the undernoted Resolutions were passed, only three members dissenting—

"That the Central Cotton Committee, after having given full consideration to the proceedings of a meeting of cotton-growers, ginners and traders with members of the Provincial Cotton Committee (Punjab) held at Lahore on the 19th March 1924, and to the proceedings of the Provincial Cotton Committee (Punjab) held at Simla on the 23rd June 1924, is convinced that the licensing of gins and presses will provide the only remedy for mixing in the Punjab, that is likely to have immediate and practical effect. The Committee also wishes to impress upon the Government of India the desirability of putting the Gins and Presses Bill before the Legislature with as little delay as possible."

6. At the Ninth Meeting of the Central Cotton Committee the Vice-President (Mr. V. A. Grantham) reported that the Cotton Ginning and Pressing Factories Bill had been introduced at the September Session of the Legislative Assembly and circulated for opinion. The Bill was identical with the draft finally submitted by the Central Cotton Committee *except that the important enabling clause (permitting Local Governments to introduce a system of actual licensing) had been omitted*. It had been felt that the inclusion of this clause would prejudice the chances of the whole Bill being accepted and that the question of licensing could be taken up later if it was still found necessary.

7. The Cotton Ginning and Pressing Factories Act (1925) was passed by the Legislative Assembly in March 1925, and, at the request of the Government of India, the Local Sub-Committee of the Indian Central Cotton Committee submitted a draft of the rules under the Act for consideration. These draft rules were considered by the Central Cotton Committee in July 1925, and a Cotton Ginning and Pressing Factories Sub-Committee was appointed for the purpose of dealing with matters, references, etc., arising from the application of the Act.

8. The Central Cotton Committee discussed the question of malpractices in cotton presses, *i.e.*, watering and mixing in July 1927, when the undernoted Resolutions were passed :—

"That in view of the continuance of malpractices in cotton ginning and pressing factories, the question of introducing the actual licensing of such factories should now be re-examined."

"That the Cotton Ginning and Pressing Factories Sub Committee be requested to report to the next meeting of the Central Cotton Committee—

(a) in what areas malpractices are so prevalent as to make necessary the licensing of cotton ginning and pressing factories,
(b) for what offences licenses should be suspended or revoked,
(c) how such offences are to be defined and proved, and
(d) what machinery should be set up for controlling licenses and for dealing with offences."

9 In December 1927, a report from the Cotton Ginning and Pressing Factor es

mixed, watered or seedy
Cotton Committee acce
further investigation, it
tions is not feasible at
legislative measures will
Committee were informed by the representatives of Hyderabad and Indore States that the Governments of these States had passed rules under the State Cotton Ginning and Pressing Factories Act, penalising by closure of the factory concerned or by fine, the mixing or adulteration of cotton in factories within the State's jurisdiction All ginning and pressing factories in these two States are required by law to take out a license.

10 In December 1930, the Chief Agricultural Officer in Sind placed a note on some of the more important and imminent problems connected with the future development of cotton cultivation in Sind under the Lloyd Barrage before the Indian Central Cotton Committee Section C of this note dealt with "the problem of the ginning and pressing factories" and included the paragraphs given below —

"With the establishment of perennial irrigation in Sind which will shortly become an
mittee of 19
of the succ
dealt with
and the pr
largely dep
for purity and cleanliness being ... and maintained in the cotton markets of India and of the world.

As one very important condition towards achieving this end, I consider that the *introduction of a system of licensing of ginning and pressing factories in Sind is absolutely essential.*

This Committee is fully aware of all the arguments, both for and against such a system and the practical difficulties which have arisen in the past in this connection In Sind in the future as in the Punjab at present, the cultivation of long and short

attention."

11 The note was considered by the Agricultural Research Sub Committee who stated in its report "The Sub-Committee desires to emphasize that the licensing of gins and presses in Sind is essential to the proper development of cotton growing in that Province, and hopes that a strong recommendation to this effect will be made by the Central Cotton Committee to the proper authorities". The report was adopted by the full Committee

12 At the ... Meeting of the Indian Central Cotton Committee (August
The question had
replies received are

(a) *East India Cotton Association, Ltd, Bombay.*—Considers time inopportune for fresh legislation towards licensing, in view of impending constitutional changes.

(b) *Millowners' Association, Bombay.*—Convinced that licensing legislation is necessary to check malpractices.

(c) *Indian Merchants' Chamber, Bombay.*—Considers time inopportune for licensing legislation.

(d) *Karachi Chamber of Commerce, Karachi.*—Is not averse to licensing of gins and presses but desires report by Committee of all interests involved as a preliminary step.

(e) *Ahmedabad Millowners' Association, Ahmedabad.*—In favour of legislation towards licensing to check malpractices, *e.g.*, mixing of different varieties.

(f) *Tuticorin Chamber of Commerce, Tuticorin.*—In favour of legislation towards licensing of gins and presses and towards preventing growth of mixture in the fields.

(g) *Upper India Chamber of Commerce, Cawnpore.*—In favour of legislation towards licensing of gins and presses.

(h) *Bombay Chamber of Commerce, Bombay.*—Strongly in favour of licensing legislation.

(i) *Karachi Indian Merchants' Association, Karachi.*—Strongly opposed to licensing legislation.

13. Reference to the discussion which took place on the subject of licensing of gins and presses at the Central Cotton Committee meeting shows that the introduction of licensing legislation was generally supported by the representatives of the cotton-growers, the millowners and the Agricultural Departments and opposed by the gin-owners on the main ground that all mixing did not take place in the factories and that the gin-owners would be penalised for malpractices over which they had no control. The Committee finally passed the undernoted Resolution :—

"That the Indian Central Cotton Committee re-affirms its Resolution of 1924 (see paragraph 5 above) recommending to the Government of India that the Cotton Ginning and Pressing Factories Act should contain a clause providing for the licensing of gins and presses and that this clause should be made operative on each province by Resolution of the Provincial Legislative Councils."

14. In Sind, the regulation of gins and presses in the Barrage areas was discussed at the Second Meeting of the Sind Cotton Committee (January 1933) when a Sub-Committee was appointed to consider the question and report at the next meeting. The Report of the Sub-Committee, which was adopted by the full Committee, included a recommendation that the Cotton Ginning and Pressing Factories Act should be amended in order to give enabling powers to Local Governments to introduce legislation, *i.e.*, licensing of gins and presses in the future, should such action be found advisable in the interests of the cotton-growers.

APPENDIX III.

SUBJECT 14—*Half-yearly Report of the Publicity and Propaganda Officer.*

If the demands on the services of the Publicity and Propaganda Department is any criterion of the growing usefulness and appreciation of its activities, then it may be claimed without any appearance of exaggeration that the Department has progressed a long way towards the realisation of the hopes entertained at the time the Department was inaugurated. Requests for assistance from the Provincial Departments of Agriculture for the purposes of furthering schemes of propaganda, and requests from scientific, trade, agricultural and other associations as well as individuals interested in the production, marketing and manufacture of cotton, for informational matter for enlightenment on findings of scientific interest as well as practical importance, indicated the greater use made of this section of the Committee's activities.

Turning to press propaganda in the country, there was not one first class daily newspaper in India which did not contain a record of or reference to the work of the Committee as broadcast by the Publicity Department. The number of applications received for the Press Communiqués as a result of the intense interest evinced in the various lines of research in this basic industry proved sometimes to be a source of embarrassment to the Department.

Notable Events.—The most notable instances of propaganda campaigns in the realm of "field propaganda", besides a large variety of Publicity and Propaganda work carried out in other directions during the half year under report, are propaganda for (a) the

crop.

to the Department wrote in paragraph 8 tary, Indian Central

"The Publicity Officer after seeing the very good leaflets and handbills which Besides a number of articles in the daily created wide interest in the subject of Cotton Boll worm Control Scheme"

These campaigns would have been difficult to attempt but for the free and cheerful co operation of the Director of Agriculture, Bombay Presidency, and the Chief Agricultural Officer in Sind who had always been found ready and willing to help That the enthusiastic nces, is a kindling so close

securing improved strains of cotton by selection an investigation of crop growth, entomological for stud pests and measures to combat them, and mycological for finding out ways to avoid loss due to wilt and root rot.

This work is continuous The knowledge gained influences the grower and the trade It emphasises old truths as well as new, so that farm practice may be brought as closely as possible into harmony with scientific research During the half year under report informational publicity gave special attention to the broadcasting of the Committee's work in Madras It aided in calling the attention of the authorities and the Government to the enormous loss resulting to the cotton crop from the cotton stem weevil

The e has not yet cal plants it is case of

Guided by information furnished through the publishing of results from the Madras

outcome.

Foreign Propaganda

The half year now ending has been remarkable for propaganda in Great Britain and keeping them well

stimony to the eagerness on Trade Journal", 'United w", London, "The Textile hester, "The Textile Manu- he material furnished by the

In thus disseminating knowledge regarding Indian cotton to the outside textile world, through the columns of foreign papers and journals, the Publicity Department has striven to promote permanently the end of production, *i.e.*, consumption. Press Communiqués and other important publications were sent, among other organisations, to all Spinners' Associations, both local and foreign so that their constituencies might absorb more and more of the Indian growths. Among important organisations, which received the publicity material, may be mentioned the Lancashire Indian Cotton Committee, Manchester, International Federation of Master Cotton Spinners' and Manufacturers' Associations, Manchester, Fine Cotton Spinners' and Doublers' Association, Ltd., Cheshire, Oldham Master Cotton Spinners' Association, Oldham, British Association of Managers of Textile Works, Bolton, United Textile Factory Workers' Association, Oldham, Japan Cotton Trading Company, Bombay, Gosho Kabushiki Kaisha, Ltd., Bombay, Sri Krishna Mills, Ltd., Mysore, Toyo Menkwa Kaisha, Ltd., Bombay, etc.

Propaganda to promote cotton cultivation on Indus Right Bank Areas.

Propaganda for the extension of improved cottons on the right bank areas of river Indus under perennial irrigation assured by the Lloyd Barrage Canals was undertaken among growers on an extensive scale.

A finely printed, colour illustrated pamphlet with excellent get-up indicating (*a*) the improved type of Punjab-American (4F-18) being more suitable for this tract than 27 W. N. (improved *Deshi*), (*b*) seed rate and irrigation and (*c*) time and method of sowing, was prepared for the occasion and 1,500 copies were distributed in the Sind area.

The Publicity Officer took the opportunity of his visits to Sind to carry on propaganda among the growers on the spot and thus to further the progress of the campaign.

The Publicity Officer is well satisfied that his personal visits have greatly facilitated his work which indeed cannot be carried on vigorously unless constant touch is maintained with local conditions.

The visit was supplemented by Press Propaganda and an illustrated article in the "Sind Observer" and in one of the vernacular local dailies to interest the public in cotton cultivation and its development in Sind, and so to create a favourable setting for the activities of those who are charged with the work on the spot. The campaign received generous support from the Press throughout the Province, and in the editorial and news columns the newspapers gave prominence to the Committee's propaganda plans. This indicated a sympathetic understanding of the work of the Committee in Sind and its ultimate objective.

A popular illustrated leaflet on the "Improvement of cotton in Sind" was issued by the Publicity Department, describing the work of improvement on cotton at Sakrand and the extension of improved seed with financial assistance from the Indian Central Cotton Committee. It deals with the improved strains evolved from the four main classes of cotton, viz., Punjab-Americans, imported Americans, Sind *Deshi* and imported Egyptians. The improved strains evolved on account of better yield, higher ginning percentage or superior quality by botanical selection and stabilization are the 4F-98, 289F, Sea Island 2-4, Boss III-16 and 27 W.N. A considerable number of copies of this pamphlet were distributed widely among cotton associations, trade organisations and district and *tahsil* agricultural associations in Sind. Nor was the Publicity Department unmindful of the interests of the foreign cotton growing, trading and manufacturing organisations, because copies of this important leaflet were sent to all countries consuming Indian cotton in Europe, United States of America, China, Japan, East Africa, Malaya and Australia.

The campaign received further stimulus by the issuing of an attractively designed poster entitled "It pays to grow cotton in Sind" with a view to bringing appreciably larger areas under cotton on the Indus Right Bank. The poster draws the attention of the cultivators to the fact that while the grower of jowar gets only Rs. 20 per acre and the grower of rice obtains only Rs. 30 per acre, the grower of cotton prospers with Rs. 50 per acre. Although the Publicity and Propaganda Department's work was limited to the display of these posters on the Right Bank areas of river Indus, such an insistent demand for this poster has come from all over the country and also from Europe and America that within the limits of the stock available, free issue had to be confined only to special cases. Indeed both in design and usefulness this poster has been considered to be so nearly perfect that the force of its appeal cannot but drive its message home to the literate and illiterate, old and young alike.

Sir Richard Jackson was much impressed by the poster and expressed a wish that it should be given wide publicity in England and other European countries. Accordingly photographs were taken of this poster and sent to various papers for reproduction along with descriptive notes. The "Textile Recorder", Manchester, the "Textile Weekly",

Manchester, the "Textile Manufacturer", Manchester, the "Textile Industry", Ahmedabad, the "Indian Textile Journal", Bombay, the "Times of India" and the "Bombay Chronicle", Bombay, and the "Hindustan Times", Delhi, enhanced the immense potential value of the poster by giving a prominent place to the poster in their pages with the explanatory notes.

Encouraging cultivation of Jayawant.

The Publicity Department has pursued during the half year a similar campaign of

Broach Clean-up Campaign.

Committee The programme included 'Get more money for your cotton crop exterminate the Boll worm" in the handbill depicting the plant puller at work and showing the advantages of our project by means of illustrations of a protected and unprotected plant the Publicity Department was able to induce the masses to take advantage of the valuable information contained therein and improve their economic well being

While dealing with propaganda through the use of posters it is interesting to record that because of their successful display, the demand for the poster entitled "India's Bid for Supremacy in the World's Cotton Markets" having far exceeded the stock available, a third edition was printed in English, Hindi, Gujerati, Marathi, Sindhi, Urdu, Gurmukhi, Kanarese and Tamil The printing of a Telugu version for the cotton growing tracts like Cudappah, Kurnool and Bellary of the Madras Presidency is under preparation.

Leaflets.

In addition to the propaganda activities the Department furthered its educational efforts by continuing to issue printed publications to broadcast findings of great economic importance. The leaflets were —

Urdu Kanarese and Marathi at the ... leaflet describes the ... mmittee in co-operation

evolving a strain of Gaorani cotto ... present strain. Copies of this leaf ... Nizam's Government, the Director ... Botanist, Parbhani, and to the ...

(2) "*Institute of Plant Industry*".—This illustrated leaflet printed in Hindi and Marathi deals with the fundamental causes which led to the formation of the Plant ... cotton ... version ... import-

waste into a ... of Hindi and Marathi were printed and the Director of the ... was supplied with a sufficient number for free distribution.

(3) "*Verum Cotton*".—This Hindi leaflet describes the co-operative scheme started in 1930-31 with the object of securing an adequate price for the growers and maintaining supplies of pure seed. 1,200 copies of this have been printed and a large number was forwarded to the Director of Agriculture, Central Provinces, for distribution. They were sent to the vernacular presses as well.

(4) Copies of the illustrated leaflet in Gujerati entitled "*Get more money for your cotton crop by removing roots with a plant puller and thus exterminate the Boll-worm*" were reprinted for distribution in the Broach district. An illustrated handbill featuring the plant puller at work and a protected and unprotected plant was also reprinted to accompany the leaflet.

(5) "*Summary of Proceedings*".—A summary of the discussions of the subjects that came up for consideration at the 28th meeting of the Indian Central Cotton Committee held in Bombay on the 29th and 30th January 1934 was again prepared by the Publicity Officer in a less formal manner for the benefit of members of all Chambers of Commerce, Trade Associations, Co-operative Societies and others.

The demand for publicity literature continues to be heavy.

Exhibitions and Shows.

During the period with which this report deals, the Publicity Department has again to its credit an excellent record of displaying cottons and yarn exhibits from improved Indian cottons. In April last, the Department took part in the "*All-India Khadi Exhibition*", Bombay, under the joint auspices of the Bombay Swadeshi League and the All-India Spinners' Association. In compliance with a request from the Secretary of the Exhibition Committee, 16 samples of *kapas* with an equal number of lint samples from the following cottons were attractively exhibited, in containers with well-designed labels which compelled attention, with a view to popularizing the use of these cottons: (1) Jayawant, (2) Gadag I, (3) Surat 1027 A.L.F., (4) Wagad 8, (5) 4F, (6) Punjab-American 289F, (7) Mollisoni, (8) Aligarh A19, (9) C. 402 (Madhoganj), (10) Verum 262 (Nagpur), (11) Verum 262 (Akola), (12) Umri Bani, (13) Cambodia Co. 2, (14) Nandyal 14, (15) Hagari I and (16) Karunganni C7. About a dozen posters "India's Bid for Supremacy in the World's Cotton Markets", "It pays to grow cotton in Sind" and "Encouraging Jayawant in preference to local Kumpta" were displayed. The Exhibition lasted for a fortnight and provided an almost ideal opportunity of bringing home to enormous number of people who visited it, the pre-eminent importance of cotton in developing the indigenous industry of the country and in making finer goods in India, which has been a prerogative of other nations for many decades.

A large number of people showed great interest in the Exhibits of the Indian Central Cotton Committee, and it is pleasant to record that our enterprise was rewarded by many enquiries from traders and from the public regarding the various types of Indian cottons used in Indian mills and exported to foreign countries in which they were interested, especially in view of the low prices now obtainable for cotton.

Publicity literature was distributed to interested visitors. Demonstrations on the spinning performances of the various cottons exhibited were given by an assistant from the Technological Laboratory and a statement showing the spinning details of each of the cotton samples was distributed freely to crowded audiences.

The wholehearted co-operation of the Indian Central Cotton Committee in the Exhibition was acknowledged in a letter from the Secretary of the Exhibition who, *inter alia*, said "..........My Committee desire me to express their sincere thanks to the Indian Central Cotton Committee for their co-operation and help in making the Exhibition a complete success".

"I should like to add an expression of my gratitude for all the advice and assistance which you afforded me during the Exhibition and for answering questions of a technical nature regarding the agricultural improvements effected in Indian cottons in a language understandable by the layman. These and other matters of interest to cotton growers, tradesmen and manufacturers which were the subject of your talks were, I am glad to add, greatly appreciated by all sections of people."

"*Indore Exhibition*".—Another Exhibition in which the Publicity Department participated was the Indore Exhibition held in March under the patronage of the Government of His Highness the Maharaja Holkar of Indore.

Publicity material, including posters, pamphlets and leaflets, etc., were freely distributed among cotton cultivators, traders and businessmen.

A leaflet describing the work of the Institute of Plant Industry, Indore, on the improvement of cotton was read with special interest

"*Agricultural Show at Chikodi*".—
the Publicity Department participa
22nd, 23rd and 24th of March by
Chikodi A demonstr
Scheme of Jayawant
Agriculture, Dharwar M C, Dharwar A special poster designed to assist the Bombay Department of Agriculture in the extension of "Jayawant" in the Dharwar area in preference to local Kumpta was displayed and

Enquiries.

"As regards your publicity work" observes Sir Richard Jackson, Chairman of the Lancashire Indian Cotton Committee, Manchester, "I think your reports give the public a valuable idea of the time, money and effort devoted to the product, the cultivation and marketing of which we have so much at heart".

A large number of enquiries were received and attended to by this Department of the Committee from this country as well as from abroad The British Cotton

discussed in the press As a correspondent of one of the biggest German textile papers "Der Konfektionar" and other leading economic reviews, I shall be very glad to get from you some informative material on Indian cotton, perhaps also photos" All the published information on the subject was accordingly supplied as also some of the leaflets and press communiqués which were of interest. Enquiries of this kind from distant

Press Communiqués.

Communiqués on the following subjects by the Department received wide publicity in a large number of newspapers in all parts of India —

(1) *Report of the 28th meeting of the Indian Central Cotton Committee*.—A short
ntral Cotton
played by
ast, and its
prominent place in the future relations of the two nations.

(2) *The harmful effects of cholam on succeeding cotton crop*—Indicates the results

(4) *Review of the Annual Report of the Indian Central Cotton Committee, Bombay, for the year ending 31st August 1933.*—A summary describing the activities of the Committee; legislation for the better growing and marketing of cotton, compilation of cotton statistics of value to the trade, research directly carried on under its auspices and others promoted by the grant of subsidies to Departments of Agriculture in the Provinces and States, Seed Extension Schemes and the publicity and propaganda to create and stimulate public interest in the growth and fortunes of cotton, the most important money crop in India.

(5) *Pempheres and Physiological Scheme.*—Deals with the entomological and physiological investigations that are being carried out into the methods of fighting out the cotton stem-weevil—an important pest in the Madras Presidency, and at ascertaining the causes for the greater damage by the pest on some cottons than on others.

(6) *Madras Herbaceum Scheme.*—Gives in short the efforts made by the Committee. to evolve by breeding methods a suitable strain possessing the yield, ginning and spinning qualities of Karunganni, combined with the colour and root system of Uppam and the results so far obtained.

(7) *Madras Fodder Cholam Scheme.*—A note on the investigation into the harmful effects of fodder cholam when compared with cumbu on the succeeding cotton crop and the method of attack on the problem from the points of soil moisture, soil nitrogen, distribution of cholam and cumbu roots in the soil and the rate of their decomposition and the important findings thereof.

(8) *Development of Cambodia cotton in Coimbatore District.*—Deals with the condition of Cambodia cotton crop in Coimbatore district prior to 1918–19 and the lines of development thereafter.

In addition to the communiqués mentioned above, a special series of articles drawing attention to the Technological Laboratory's work at Matunga in the following directions were issued :—

(1) *High Draft System of Spinning and their importance to Trade* (2) *Yarn testing and its importance to cotton mills.*—These two articles deal with the experiments conducted at the Technological Laboratory of the Committee on spinning and yarn-testing, and the importance of the useful findings to trade and cotton mills.

Promotion activities with respect to India's cotton production this year and thereafter.—Another article also issued deals in the main with the Committee's research and seed extension schemes in progress and the prospective ones.

Commercial Survey of Indian Cottons.—This article gives a short account of the various improved varieties of Indian cottons grown in the different parts of India. Its publication will be of interest to the trade.

Tours.

During the half year under report, the Publicity Officer visited Coimbatore, Koilpatti and other important centres in the Madras Presidency in connection with the work of the Committee. He attended the 5th meeting of the Sind Cotton Committee held on the 14th June at Karachi at which various steps which would help to accelerate the pace of demonstration and propaganda work in the Barrage area were discussed. He later made a tour of the important cotton centres in the Hyderabad district.

These tours were found to be of great value in keeping the Publicity Officer in intimate personal contact with propaganda problems and enabling him usefully to contribute to the development of cotton in the light of the information collected during the tours.

Future Programme.

The most notable achievement of the Publicity and Propaganda Department of the Committee during the period under report has been the appreciable quickening of interest in the work of the Indian Central Cotton Committee among cotton growers who put the results of scientific investigations into practice. Excellent material progress has been made on the three active propaganda projects described in the preceding pages. By far the most important portion of the propaganda scheme is that relating to the improvement of the economic conditions of the grower and his national well-being. The work done has clearly shown that this type of beneficial activity is of such real consequence to the agricultural population in the districts that ready appreciation will be forthcoming from even the illiterate peasantry of the advantages of improvements in cotton,

stigations that its its Propaganda Department.

findings.

cotton, combating pests and expansion of improved varieties.

It would likewise continue to assist the Chief Agricultural Officer in Sind in his endeavour to encourage cultivation of cotton on Indus Right Bank areas, and for that purpose will issue a vernacular edition of the propaganda illustrated leaflet, with the *reproduction of the Poster "It pays to grow cotton in Sind" on the front page.*

Newspapers, *al information*

The Publicity Department may be allowed to convey its thanks to office bearers and members of the Committee for the encouragement it has received and to express the hope that the Provincial Departments of Agriculture will continue to give their co operation and assistance in the future, as they have done in the past

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APPENDIX IV.

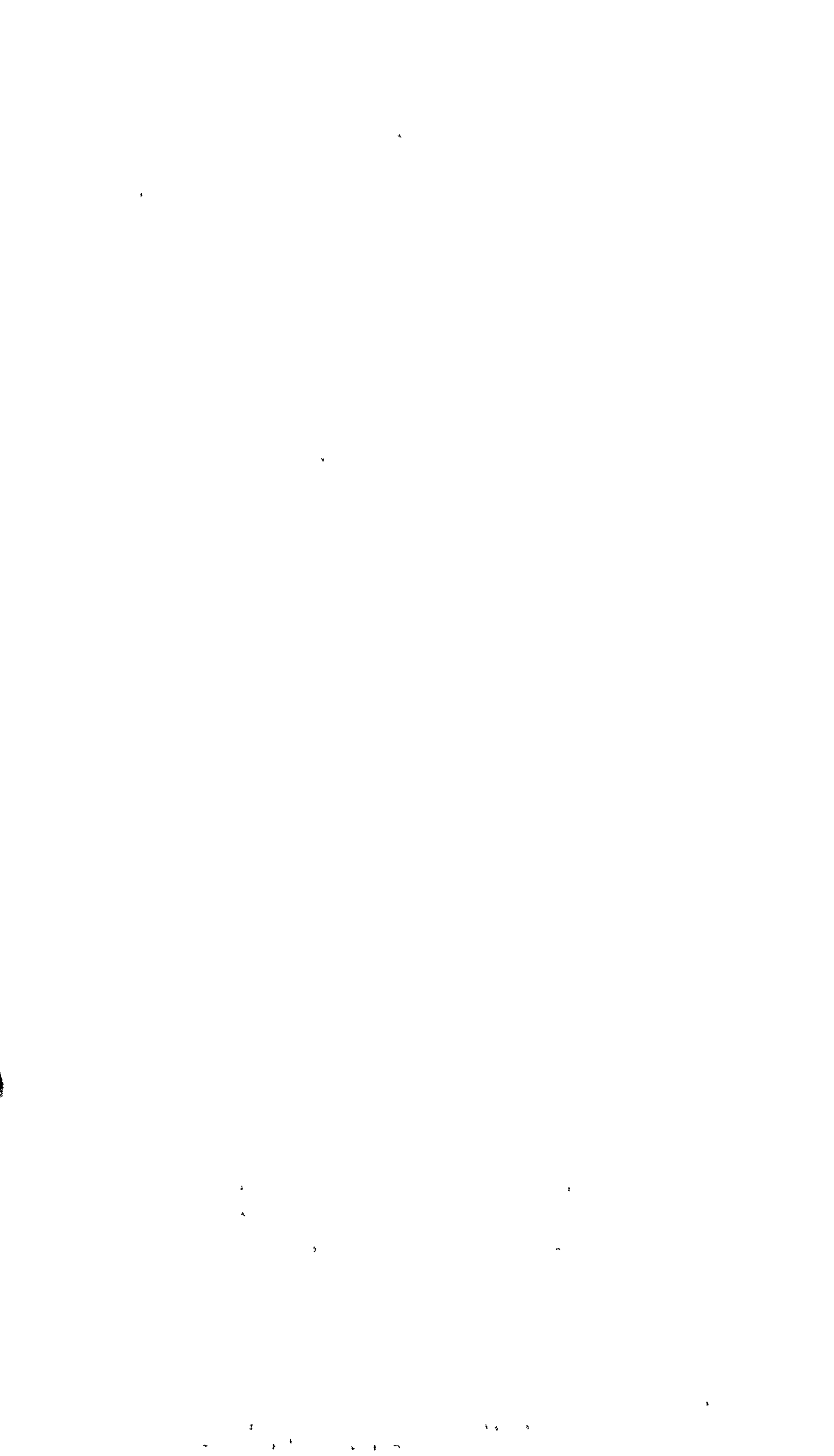
SUBJECT 19.—*Schemes of the Committee—Report of the Special Meeting of Agricultural Research Sub Committee.*

A memorandum on the agricultural research schemes prepared *by the Secretary* at the instance of the Standing Finance Sub Committee was considered by that Sub Committee at its 126th meeting held on the 19th January 1934, and referred to the Indian Central Cotton Committee for further consideration in the light of the expenditure so far incurred on agricultural research, the future commitments of the Committee with regard to current schemes, and the general financial position of the ... Cotton Committee, at its 28th meeting held on the ... report on it from the ... ion —

Pe

to seed ... and raised by the ... ittee along with the report of the special meeting of the Agricultural Research Sub Committee.

... a special meeting of the Agricultural Research ... 9th June 1934, as on account of unavoidable ... The Sub Committee met on the 29th and 30th



(4) The consideration of the United Provinces Pink Bollworm Extension Scheme should be put off till the scheme was finally adopted by the United Provinces Government.

(*f*) The following general policy in regard to schemes was also laid down —

A. Agricultural Research.

(1) Local Departments of Agriculture should, as hitherto, continue to submit research schemes.

(2) A complete and thorough summary of the up to date work done and the knowledge gained on the problem in question in other parts of the world should accompany each scheme.

(3) A special Sub Committee of expert members should be appointed to examine every new scheme and find out if, in preparing it, the officer concerned had complied with item (2) and had taken into account all published work, and consulted competent authorities on the subject.

(4) Hereafter the Committee's money should not be spent where provincial money was available.

(5) All entomological and mycological schemes should be scrutinised more thoroughly and that whenever possible Universities should be invited to take up entomological and mycological problems and small schemes involving fundamental research

Committee should, after examining the new
for the whole of the area having the same
research should be carried out, and where
sub stations, if necessary, should be opened.

B. Seed distribution and extension.

policy in regard to seed schemes is
d be subjected to a very thorough

C Publicity and propaganda.

Publicity and Propaganda scheme should be made permanent

D Indore Institute.

this period on propaganda work and compost, instead of research into cotton

To achieve this
Institute, than
f the Committee
of the existing
ng Body being
therefore necessary, a report from the President in that direction might be awaited

It was also decided that it was necessary to have a Central Research Station for cotton and that for the present it should be the Institute.

E General

Differing from Mr. Roberts regarding the alleged mismanagement of cess funds by the Standing Finance Sub Committee, the Sub-Committee placed on record its deep appreciation of the work done by the Standing Finance Sub Committee,

APPENDIX V.

SUBJECT 23.—*Technological Research—Summary of Progress Report of the Director, Technological Laboratory.*

PROGRESS REPORT (No. 22) OF THE DIRECTOR, TECHNOLOGICAL LABORATORY.

INTRODUCTION.

This, the 22nd progress report, covers the period from 1st November 1933 to the 31st May 1934 and presents an outline account of the work done in the Laboratory during this seven months' period and from which it will be seen the Laboratory has once again maintained a high level standard of work done. The work so described is divided, as usual, under the following five heads:—

I. Spinning Laboratory.
II. Research Laboratory.
III. Moisture Testing Section.
IV. Publications.
V. General.

I. SPINNING LABORATORY.

The total number of samples received for test during this seven months' period are classified in the six categories shown in the following Table No. I. Figures for the corresponding period of last year are also given for the purpose of comparison:—

TABLE I.

—	1st November 1933 to 31st May 1934.	1st November 1932 to 31st May 1933.
Agricultural Departments	200	262
Standard cottons	15	17
Trade samples	32	31
Fibre test samples	22	46
Yarn test samples	2	13
Special test samples	40	55
Total ..	311	424

Compared with the corresponding period of last year the total number of samples received at the Laboratory during the present seven months' period under review shows a decline of 113 samples the bulk of which are agricultural samples. Much of the late arrival of samples has been made up by the receipt of 75 agricultural samples within six days of the closing date of this period. The total number of samples spun during this present period exceeds the number received by 30 per cent. Little or no difference is recorded in the number of standard and trade samples received which shows these samples were received in time.

The number of samples and lots spun either as a combined spinning and fibre test or as a spinning test only during this period is shown broadly classified in Table II. The

number of separate spinnings, or counts spun, is also given for each of the nine classifications. Corresponding figures for the same period of last year are given in the table for comparison —

TABLE II.

—	Samples		Lots		Counts	
	1st November 1933 to 31st May 1934	1st November 1932 to 31st May 1933	1st November 1933 to 31st May 1934	1st November 1932 to 31st May 1933	1st November 1933 to 31st May 1934	1st November 1932 to 31st May 1933
Bombay ..	70	66	70	66	12	201
Punjab .	8	39	8	39	24	117
United Provinces .	6	7	6	7	18	22
Madras .	44	28	44	28	133	85
Central Provinces .	9	5	9	5	27	15
Miscellaneous .	68	36	68	36	207	111
Total .	205	181	205	181	621	551
Standard tests .	15	17	30	34	168	188
Trade tests .	32	25	32	25	88	66
Technological tests.	87	46	90	50	249	88
Grand Total .	339	269	357	290	1,126	893

The Spinning Laboratory, during this seven months' period under notice, has tested nearly 25 per cent. more samples and lots than were tested during the corresponding period of last year.
the recent introductic [illegible]
No 3 Ring Frame ; [illegible]
samples.

Yarn Testing Section.—This section has been very fully occupied making the necessary tests on the yarns spun in the Laboratory, and has, during the seven months' period, completed tests on 300 samples which include determination for the count, strength and twist of each yarn. The results of some of these tests are included in the Technological Circulars listed at Table on page 79 and others are incorporated in the many spinning test reports noted at Table III, which are issued to the various agricultural officers concerned.—

TABLE III

—	1st November 1933 to 31st May 1934	1st November 1932 to 31st May 1933.
Spinning Test Reports .. .	59	50
Fibre " " ..	6	15
Yarn " " .. .	1	3
Total ..	66	68

Table III comprises the number of reports issued during the present period and comparative figures for the same period of last year. Each of the 59 spinning test reports include the results of a combined spinning and fibre test and the six fibre test reports issued detail the results of only the fibre tests.

In addition to the reports issued to the many agricultural officers concerned not a few of the samples listed at Statement A above forms the material for tests of a special nature. These special tests are outlined below in the following four broadly classified groups :—

I. *Agricultural samples*—

- (*i*) Irrigation experiments.
- (*ii*) Rotation experiments.
- (*iii*) Manurial experiments.
- (*iv*) Bukalasa cotton tests.
- (*v*) Standard Indian cottons.

II. *Fibre tests*—

- (*i*) African cottons.
- (*ii*) Dokras cotton.

III. *Trade Tests*—

- (*i*) Millowners' and E. I. C. Association samples.
- (*ii*) Dry and Damped cotton.
- (*iii*) Deterioration of Broach cotton stored at Bombay.
- (*iv*) Deterioration of stored cotton at Karachi.
- (*v*) Effect of compression in baled cotton.
- (*vi*) Storage effect on fibre quality.
- (*vii*) Storage effect on *kapas* before ginning.
- (*viii*) Deterioration of Broach cotton due to damping.
- (*ix*) Cloth samples.
- (*x*) Sized yarn samples.

IV. *Technological samples*—

- (*i*) Experiments on the carding engine.
- (*ii*) Ginning experiments.
- (*iii*) Wax content and feel of cotton.

I. *Agricultural samples.*

(*i*) *Irrigation experiments.*—The samples received from Bikaner, Sakrand and Coimbatore for this investigation were tested during the present period. The results are tentatively summarised as follows :—

Bikaner.—Frequent and heavy irrigation resulted in better yield, higher ginning percentage and stronger yarns but the differences are not large.

Sakrand.—Regular irrigations gave slightly longer fibres ; 10 irrigations, as compared with 7, gave less immature fibres, less loss in processing the cotton and stronger yarns with fewer yarn breakages.

Coimbatore.—Different spacings and irrigations are considered conjointly. Compared with the dry sample irrigation results in an increased yield of seed cotton, reduction in number of immature hairs and neppiness of yarns but shows no change in fibre length or fibre weight.

(*ii*) *Rotation experiments.*—In order to ascertain which rotation gave the best results the Cotton Specialist, Coimbatore, sent six samples for test which had been grown after cumbu, cholam, ragi, groundnut, fallow and green manure respectively. Considering both yield and spinning performance the green manure sample gave the best results with groundnut and fallow following next in order. A similar experiment was made by the Superintendent, Agricultural Research Station, Koilpatti, on five samples of Karunganni C7 which were grown after irangu, cumbu, pillipasara, set seed and "shot blade" respectively. Previous tests had indicated that irangu lowered the spinning performance but the present test reveals no significant difference with the exception of the sample after pillipasara, which gave a longer fibre but slightly less even yarn. The other samples show no difference among themselves and all are slightly inferior to the control sample.

(*iii*) *Manurial experiments.*—As mentioned in the Director's last progress report, a paper on the effect of manurial treatment on Cambodia Co. 1 cotton to investigate the type of manure and the amount of dressing to give the best results of yield and spinning performance with Cambodia was completed and read before the Indian Science Congress held in Bombay in January 1934. Another manurial test, noted in progress report No. 20, has been completed during the present period on Karunganni C7. Two different manures were applied in this case and both gave stronger yarns than the control sample. There was little to choose between the results of the two manured samples and the results of this test confirm those of the previous tests.

(iv) *Bukalasa cottons* —Spinning and fibre tests were recently carried out on eight cottons submitted by the Agricultural Officer of the Bukalasa Experimental Stations, Uganda This is the second year in succession that the Committee have permitted tests to be made on these cottons

an important factor

bulletin on the Standard cottons

gone out of cultivation these cottons will be

Hagari 25 has been replaced by Hagari I

II Fibre Tests

mean length could be

Bombay Millowners' Association to assist by sending to the

month three or four samples of these African cottons of fair average quality of the season

(ii) *Dokras Cotton* —Mr M I

sample of cotton (recently evolved by

tested and its results to be comp

particular sample of Dokras was found to be about 15 per cent

than the standard Verum 262

III Trade Tests

Cotton Association and the Millowners' Associations

made in Sep

as usual, been subjected to the spinning

the respective circulars A list of these Technological circulars issued

seven months is given below —

Cotton	Technological Circular No	Date of issue
Umri Bani	110	December 1933
Verum 262 (Akola)	111	January 1934
Khandesh (Bengals)	112	February 1934.
Ujjain	113	,, ,,
Punjab American 289 F	114	,, ,,
Verum 262 (Nagpur)	115	,, ,,
C P No 1 and Berar	116	,, ,,
Khandesh	117	,, ,,
Ujjain (Mandsaur)	118	,, ,,
Moglai	119	,, ,,
Punjab American 4 F	120	March ,,
Muttia	121	,, ,,
Latur and Nanded	122	,, ,,
Hubli Kumpta	123	April ,,
Hubli Upland		

Cotton.	Techno-logical Circular No.	Date of issue.
Broach	124	April 1934
Surat	..	....
Punjab-American	125	April 1934
Westerns	126	May "
Miraj	..	....
Surat 1027 A.L.F.	127	May 1934
Hagari I	128	" "
Cambodia Co. 2	129	" "
Gadag I (Dharwar-American)	130	" "
Surat	..	....
Tiruppur Cambodia	131	May 1934
Farm Westerns	132	" "
Kumpta	133	" "
Jagadia	134	" "

(ii) *Dry and damped cotton.*—The third set of samples connected with this investigation was recently drawn from the three Amraoti bales kindly placed for the purpose at the disposal of the Laboratory by Messrs. Volkart Bros. Spinning tests were carried out on lines similar to those made in the first two sets of samples. Fibre tests on the cotton and tests on the spun yarns on this third set of samples are now being made. The fourth and last lot of samples will be drawn and tested in a similar manner after the lapse of a suitable period and the results will finally be written up by the Director on his return from leave.

(iii) *Deterioration of Broach cotton.*—The Board of the East India Cotton Association approved of the recommendation of their Moisture Tests Committee that, having regard to the general view of the Trade that Broach cotton tends to deteriorate more rapidly than other types of Indian cotton, the Technological Laboratory should be invited to investigate this problem and ascertain the cause (s) responsible for this noted deterioration of Broach cotton. The Laboratory accordingly purchased one bale of Broach (Palej) cotton. The first of the series of tests have recently been carried out comprising fibre and spinning tests. Further samples will be drawn from the bale at intervals of six months each and similar tests will be made. It will then be possible to decide if any deterioration has taken place in the grade and strength of this particular cotton.

(iv) *Deterioration of cotton stored at Karachi.*—In accordance with the arrangement mentioned in the Director's progress report No. 20 a third set of six samples was drawn from six of these bales three of which are stored in open plinths and three in a godown at Karachi. One of the Junior Testers from the Laboratory proceeded to Karachi in April and drew the samples. Spinning and fibre tests were made on these samples on exactly similar lines as on the previous occasion after they had been valued by the Special Appeal Committee of the East India Cotton Association. A fourth and last test on similar lines is to be made in October after which it will be possible for the Director to summarise the results of the four experiments.

(v) *Effect of compression in baled cotton.*—The high degree of density to which cotton is pressed in baling was considered as a possible cause of the observed neppiness of 289-F cotton. The Committee at their last meeting in January approved that an investigation of this problem should be accordingly undertaken. For this purpose three bales of 289-F were specially prepared; and the scope of the experiment was extended by including three bales similarly prepared at Amraoti from Berar cotton. Each cotton was pressed into three bales of the *same* size but in which the weight of cotton differed being 400 lbs., 300 lbs., and 250 lbs. respectively. Initial samples drawn from these six bales have been subjected to the spinning and fibre tests and it is proposed to repeat this procedure after a lapse of four months.

(vi) *Storage effect on fibre quality.*—Rao Bahadur Tharumal Bilaram, a member of the Sind Cotton Committee, submitted 10 samples of cotton to the Laboratory with a view to investigate the phenomenon of the heating of seed cotton when openly stored in bulk such being the prevailing practice in certain areas of Sind. He believes that the fibre deteriorates in quality and also that the germinating power of the seeds are affected.

The Director, Dr. Ahmad, communicated with the Ch...

(vii) *Deterioration of Broach cotton due to damping*—The Technological Research Sub Committee accepted the recommendation of the Moisture Tests Committee of the

under the super[illegible] ...e bale was pressed dry. ... water for one bale; 8 lbs of water for the second bale; and 1[illegible] lbs. for the third bale. Spinning and fibre tests have already been made on 12 lb samples of each of the four lots and further samples will be drawn from the three bales and similar tests made after a lapse of four months: and this procedure will be repeated again twice at intervals of four months each. Unlike the Amraoti bales mentioned at (ii) above the amount of water added to these Broach bales was known and determined beforehand.

IV. *Technological Samples.*

(i) ... The progress made with the problem has been ...

range of yarn counts and cotton of vastly different character. Certain features connected with these tests are noted in the Physics Section below

(ii) *Ginning tests*—Recently the Cotton Research Botanist, Lyallpur, ginned *kapas* of Mollisoni, 4F, 289 F and Early Strain on the saw and roller gin and sent the 8 lots of lint to the Laboratory to be tested. With the exception of Mollisoni the saw ginned ...

Two samples of Gaorani *kapas* were also ginned in the Laboratory on the saw and the roller gin. The four lots of lint have been spun and the yarns now await to be tested

(iii) *Wax content and feel of a cotton*—The results of this investigation were embodied in Bulletin Series B, No 18 This Bulletin was issued during the period under review and a brief summary of its contents is given below in the Publication Section

II. Research Laboratory

Fibre Testing Section—This section has been very fully occupied during the present period and has completed tests on 224 different samples The staff of this section have also prepared exhibits for the India House in London consisting of 21 Baer Sorter specimens of the present season's Standard Indian Cottons and also 8 halo specimens of combed seeds selected from these cottons

Physics Section—Mr. Hari Rao has made good progress with his own particular problem which deals with the effect of the "Variation in the strength of cotton fibres with twist"—each fibre so tested is subjected to different degree of axial twist and its resultant strength noted with each degree of twist He has so far completed tests on Co 2, Verum, Mollisoni and A19 partially, and tests on Banilla and Hagari will be undertaken in due course

Mr. D F. Kapadia—The general problem of the effect of "Different carding engine organisations on the quality of the resulting yarns" was begun in June 1931 by Mr Kapad... and the last test of the series was completed ... yarn tests

... separate spinnings were made 32,600 Lea and Pull tests and 32,600 Ballistic tests were made on these yarns for strength together with 64,000 determinations for count Besides this, 649 determinations of fibre distribution and fibre weight were made on the sliver, flat waste and licker in fly.

Mr. R. S. Koshal has continued his part time study of the phenomenon of "*fluorescence* of the Standard Indian Cottons when subjected to the rays of ultra-violet light." Side by side with this investigation he has also recently undertaken a study of "the effect of weather on the quality of the Standard Indian Cottons"; and, for this purpose, all the agricultural officers concerned have been invited to kindly furnish the Laboratory with records of rainfall and temperature that has prevailed on their respective farms, from where the cottons were received, during the past ten seasons.

Mr. C. Nanjundayya is now writing an account of his recent investigation of the "Relationship between fibre strength and length-grade of cotton fibres" with a view to its publication in due course. Of the two problems mentioned in the last progress report, viz., "The absorption of moisture by cotton under different degrees of compression" and "The rate of absorption of moisture by different Indian varieties", Mr. Nanjundayya has so far completed his examination of two cottons in the loose state.

Dr. R. N. Mathur before relinquishing his post, the term of which ended on 16th May 1934, submitted a brief account of the results of his "measurements of ribbon width" of five Standard Indian Cottons and also a short account of his "measurements of fibre density" made on 12 of these Standard Cottons and one Sea Island Cotton.

Chemistry Section.—Mr. D. L. Sen has continued his work on the "absorption of substantive dyes by the Standard Indian Cottons" of the last season. He is, at present, determining the wax content of the same cottons in order to find out the co-relation, if any, between the amount of dye absorbed by these cottons and their respective wax content. Furthermore, he has carried out the determination of three strains of Surat cottons as requested by the Cotton Breeder, Surat. Recently Mr. Sen has completed the work on the "Effect of manurial treatment on the yield, fibre properties and spinning values of cotton." This work will be published in due course, in the form of a bulletin. In addition, Mr. Sen has been engaged in the Moisture Testing Section at Sewri. Since November 1st, 1933, he has completed tests on 49 samples, a summary of which will be found under "Moisture Testing Section."

Microscopy Section.—In the last progress report the Director noted the importance attached by Cotton Breeders to the "maturity of fibre" test; and much of Mr. Gulati's time during the present period has been taken up in making maturity tests on certain agricultural samples besides maturity with fibre strength tests on the current season's Standard Indian Cottons. The forthcoming annual bulletin on the Standard Indian Cottons will include this feature of fibre maturity for the first time. Mr. Gulati is also investigating the percentage of mature fibres in various cottons at progressive stages of their preparation for spinning. Side by side with these investigations on fibre maturity he is making observations on the "growth of hairs and multiplication of epidermal cells on the surface of developing cotton seeds."

III. Moisture Testing Section.

The Moisture Tests Sub-Committee of the East India Cotton Association met on the 20th March 1934 and Mr. D. L. Sen the Officer-in-charge of this Section at Sewri was present by special invitation. The meeting considered Dr. Ahmad's latest report which dealt with the moisture tests made between January and June 1933. The meeting ultimately decided that the data available was not sufficient to warrant a definite judgment being formed; and that, therefore, tests should be continued for another year, and that cottons from the United Provinces, Sind, Kathiawar and Africa should be included in the scope of the tests.

The following summary table indicates the number and type of samples tested by Mr. Sen at Sewri during the present period :—

December 1933 *to May* 1934.

Appeal Committee	3	samples.
Trade (Indian)	27	,,
,, (Egyptian)	6	,,
,, (African)	5	,,
Special Experimental bales ..	8	,,
Total ..	49	samples.

This Section has up-to-date conducted moisture tests on 625 samples in all since its inception.

IV Publications

The following is the list of the Technological Bulletins and Circulars issued during the period under review —

Bulletins —(1) Technological Bulletin, Series B, No 18, "A Note on the Wax Content of Indian Cottons with special reference to their feel" by Nazir Ahmad, M Sc, Ph D, and D L Sen, M Sc (Tech) A I C

The following three papers were read before the Indian Science Congress held in Bombay on the 2nd January 1934 by the respective authors —

(1) "Effect

of cotton" b

(2) "The

yield and qua

(3) "New

Weight per

M Sc

Technological Circulars —Technological Circulars Nos 110 134 as given on page 79

During this present period the undersigned re wrote the initial draft of the bulletin to be published on the 'Combing of good quality Indian Cottons' and has also written out the initial draft for the bulletin on "Settings and Twists in Fly Frames" These two problems were mentioned in the Director's Progress Report No 19

V General

Visitors —Sir Richard Jackson visited the Laboratory on 12th March 1934 in the

ote, since then passed

al Circulars issued on

be combined at the

o those adopted with

the Secretary as also

the further one made by them that each trade cotton incorporated in these circulars could with advantage be valued each year under the same contract The East India Cotton Association have very kindly promised that this suggested procedure will be adopted in the future

Equipment—(i) *Blow room Machinery* —In accordance with the decision of the Standing Finance Sub Committee at its meeting held on 17th March 1934 the order for the new

period

Stapling Apparatus —Messrs Remfry & Son, Calcutta, the accredited Patent Agents of the Committee in this matter have obtained the patent rights of the apparatus in India and also in Ceylon and have forwarded applications for similar rights in the following countries, namely United Kingdom, France, Germany, South Africa, Canada, Australia New Zealand United States of America and Irish Free State, and the intimation of acceptance by each country may be received at an early date

One Barnstead's Automatic Distilling Apparatus was obtained for the Chemistry Section

Staff —The Director of the Laboratory, Dr Nazir Ahmad, proceeded on four months and 23 days leave out of India on the 13th March 1934 and the undersigned as Officiating Director took over charge of the Laboratory on that date

Mr A B Khan, who had previously been trained and employed temporarily in the Laboratory as a Junior Tester, was appointed on 4th April 1934 on three months' probation to the post of a permanent Junior Tester recently sanctioned by the Committee

The term of service of Dr R N Mathur who had been employed in the Laboratory as Temporary Research Assistant ended on the 16th May 1934

During this period, the second batch of student-trainees completed on 30th April 1934 their course of study-instruction. Mr. L. Trilokanath Sharma spent two months each in the Fibre, Yarn and Spinning Sections in the order named whilst Mr. Syed Abdulla confined his attention exclusively to the methods employed in the Fibre Testing Section.

ACKNOWLEDGMENTS.

I wish to tender thanks, on behalf of the Director and myself, to the Cotton Graders who have continued to materially assist the Laboratory by valuing the many cottons sent to them and issuing their valuable reports thereon; and also to each member of the Laboratory staff whose collective work during this seven months' period forms the subject-matter of the present Progress Report.

Dated the 13th June 1934.

(Signed) R. P. Richardson,
Officiating Director,
Technological Laboratory.

APPENDIX VI.

SUBJECT 70.—*Report of the Agricultural Research Sub-Committee.*

A. REPORT OF THE AGRICULTURAL RESEARCH SUB-COMMITTEE ON PROGRESS REPORTS AND PROGRAMMES OF WORK.

The Sub-Committee considered and approved the following progress reports on schemes and the respective programmes of work for 1934-35 subject to the remarks, if any, made against each :—

(1) *Agricultural Research Schemes.*

Surat Boll-worm Clean-up Scheme (*No.* 26).—As the clean-up campaign of 1932-33 season was quite a success, the period under report was devoted to making observations on the crop of 1933-34 season of the effect of the clean-up. The area chosen for the campaign was, prior to this organised course of action in 1931, more severely infested by boll-worms than the neighbouring areas, and has since improved from season to season, so much so that during 1933-34 the infestation was markedly low, the stand of the crop being good and the plants being tall and prolific. Night-caging observations have definitely shown that the incidence of the pest was less in the cleaned-up area than outside it.

The Sub-Committee desires to invite attention to paragraph 10 of the Deputy Director of Agriculture, Gujerat's letter No. C. 14/2801, dated the 28th May 1934. If 10 per cent. of the cotton-growers fail to adopt the measures which have now been so thoroughly demonstrated, they will defeat the scheme and those cotton-growers, who are now uprooting stumps, will soon get discouraged. The Sub-Committee considers that it should now be brought to the notice of the Government of Bombay that they must be prepared either to provide a considerable sum of money for propaganda and for suitable administrative action to secure the continuance of these successful control measures or to introduce legislation making the adoption of them compulsory.

The outturn too was, in spite of two spells of cold weather, 25 per cent. more than that of the previous season when almost record yields were obtained.

Although reliable data regarding yields could not be obtained, the Sub-Committee considers that a quantitative record of the actual increases in yield due to control measures will be essential to further progress and that an attempt should be made to get this information during the 1935 picking season. The cost of the necessary arrangements could be met from the very substantial savings on the scheme which, it is observed, the Director proposes to devote to the purchase of stump pullers.

Broach Cotton Breeding Scheme (*No.* 27).—This scheme has now reported on its second year's work. Efforts are being made to combine by hybridisation the high ginning qualities of Goghari and a Viramgam strain with the other required qualities of the Broach *desi* strain, B.D. 8.

Jalgaon Cotton Breeding Scheme (*No.* 28).—The isolation of wilt-resistant strains possessing also commercially important qualities was in progress, and three promising strains of *neglectum* have been selected for rigid yield trials during the next season.

Bombay Scheme for the survey of small leaf disease in cotton (*No* 29)—This is a one year scheme which started work in November last
disease varies from year to year, and the last s
shows that the disease is of widespread occurre
The symptoms of the disease are described in
is not caused by any parasitic organisms

Sind Physiological Research Scheme (*No* 30)—The report deals with the work done during the seventh year of the scheme and shows that the cotton plant

eld of
" red
leaf " disease were continued

In view of certain comments which have recently been made regarding schemes extending in directions not originally contemplated the Sub Committee desires to observe that much of the work described in this report is not, strictly speaking, physiological research but agricultural field experiments on *differential irrigation, manuring, etc*, which form a normal part of the work of a cotton research station These experiments are necessary and useful and the point is only raised here to prevent future misunderstandings

As regards the future programme of work, the Sub Committee desires to make the following observations —

Item 3(*b*) is not a very promising line of work and the item is vaguely described Red Leaf is due to a variety of causes and there is possibility of a considerable waste of time in the biochemical experiments proposed Before starting work on this item, it is suggested that the newly appointed Physiologist in the Punjab should be consulted

Items 3(*a*) *and* (*c*) are accepted by the Sub Committee on the understanding that what is here intended are observations on the cottons grown in the irrigation, manurial and varietal experiments, it is assumed that it is not intended to lay down special field experiments for these observations

Item (5)—*Control of White Ants*—The results contained in the progress report do not seem to indicate that this is a very promising line of work But it is presumed that these experiments have already been started so far as the 1934–35 season is concerned

Madras Herbaceum Scheme (*No* 31)—This scheme has now completed its eleventh
Uppam
failure,
hybrid
strains having the characters originally aimed at The report shows that no tangible results have yet been obtained

The Sub Committee is definitely of the opinion that the production of F_4 seed in sufficient quantity for commerical use is not a practical proposition

In view of the fact that the hybrid material at present has only reached F_4 and the scheme is only sanctioned until May 1935, it is recommended that the Secretary and Mr Hutchinson be asked to visit Coimbatore and make recommendations regarding the future of the scheme, if possible before the cold weather meeting

the shot blade stage, the quantity
by allowing cholam to set seed
not desirable

cotton stalks for a period of two months

plants till the next cotton season, it is suggested in the report, that an effective method of exterminating the pest lay in extending the Pest Act to other cottons as well besides Cambodia, and to advise the *ryot* to expose the stalks to the direct rays of the sun for ten days prior to their stacking.

It seems obvious, therefore, that the control of Pempheres can be attained by these methods and that for this purpose further work on the bio-chemistry of cotton is not called for. Of the actual programme, item (1) is by no means promising as the search for tolerant types so far has not been successful.

Item (2) is unobjectionable, if the scheme is continued at all.

Item (3) does not seem at all practicable in view of the fact that Pempheres is absent from the greater part of the cotton growing tracts in India.

Item (4) is practical but does not call for a special research staff.

Item (5) cannot be carried out because no such strains have yet been obtained.

Item (6) does not seem to be of practical importance as the experiments already carried out show that there is not much chance of success on a practical scale.

Item (7) has already been worked on to a considerable extent and it is doubtful whether further work will enable the conclusions already reached to be greatly enlarged.

Item (8) would be of purely academic interest and seems unnecessary in view of the work already done elsewhere.

It was reserved for this meeting of the Committee to decide whether this scheme should be continued any longer. In the opinion of the Sub-Committee the Bio-chemical work should now be terminated.

Madras Nadam Cotton Breeding Scheme (*No.* 34).—The report is for its first year of work. It was noted during the year that in Cambodia fields adjoining Nadam cottons the mortality due to the stem-weevil was 25 per cent. as against 1 per cent. in fields far away from Nadam cottons. As a type or types of cotton which could be sown and cropped at the same time as Cambodia have first to be selected, work during the year was directed to sowing trials in July and September.

It is suggested that the Secretary and Mr. Hutchinson should visit the scheme and discuss plans with Mr. Ramanathan when visiting the Herbaceum Scheme.

Punjab Botanical Research Scheme (*No.* 35).—This scheme has just completed its ninth year of life. The jassid-resistant early strain pure line families bred true to extra hairiness and were found to be free from jassid attack.

The Sub-Committee noted with satisfaction that three useful strains of American cotton had been evolved as a result of this research and that one of these (N.T. 36-F) is of unusual promise. Five more new strains of American and one of *desi* have been finally selected during the year under report for field tests. One of these, N.T. 45, has already been found to be very promising in varietal tests. The results of ridge-sowing experiments of the last seven years show that this method is in no way advantageous.

Punjab Pink and Spotted Boll-worm Scheme (*No.* 36).—*Items* (1) *to* (4) of the progress report record an elaboration of details which have previously been reported all of which bear on the problem as to why the incidence of Pink Boll-worm is so different in different parts of the Punjab.

Item (5) is an important portion of the scheme and the Sub-Committee considers that the actual results obtained from the 40 stations should have been reported and suggests that these be submitted to the next meeting of the Agricultural Research Sub-Committee.

Programme of work for 1934–35.—*Item* (*i*) was approved subject to the alteration of the description to study the *incidence* of the Spotted and Pink Boll-worm in different tracts of the province.

Item (*ii*).—The Sub-Committee considers that this item of work would be of academic interest only and that it should not be undertaken.

In regard to the proposal for further observations on Pink Boll-worm, the Committee considers that those already recorded are adequate.

Item (*iii*) is approved, it being understood that this means observations and counts on the cottons growing in the Cotton Research Botanist's Section.

The Sub-Committee has no comments to make on item (*iv*). As regards item (*v*), this has already been done for Pink Boll-worm both in the Punjab and the United Provinces and work on Spotted Boll-worm mainly seems to be required.

Item (vi) —The Sub Committee agrees as to the importance of observations on the frequency of distribution of parasites and some work on the life cycle of those not
ecessary It does not consider that methods
be successfully taken up as an item of this
nd specially trained staff

Punjab Cotton White Fly Scheme (No 37) —This scheme, which has now completed its third year, has two more years to run The report shows that the pest lives on cotton from May to September, on cultivated winter crops from October to February, and on cucurbits melons and ratoon cotton from March to May The irrigation experiments show that with increasing water supply the attack of the pest becomes less As to control measures, a single spraying in July when the pest was severe was more effective than one in August when it had declined and gave an increased yield of two maunds per acre

Method of determining comparative infestation described on page 2 of the progress report It does not appear to the Sub Committee to be the best possible It would be better to take about 100 leaves at random throughout each plot Results from one or two parts are not likely to give reliable figures The figures for the range of variation in the pH of different leaves indicate that this is not worth continuing

Item 1 on page 4 appears to the Sub Committee to be too academic, the second item is more important The experiments carried out in caged plants are on too small a
plants is necessary in order to obtain reliable results
the effect of White Fly infestation on the yield of

Programme of work in [illegible] (1) should be omitted as too acade[illegible] the effect of differential irrigation [illegible]

Item 1 (3) again seems to be largely of theoretical interest

Item (ii) would be improved by the addition of a potash manure to the series

Item (v) does not appear to be very practical as most of the soils in the Punjab are neutral or inclined to alkalinity and the proposed nitrogen study if properly done would be much extensive

Item (ix) in the opinion of the Sub Committee is quite outside the scheme and should be omitted

Item (x) does not seem to be calculated to yield any definite information since, as described, it would not determine the effect of parasites

Item (xi) It is doubtful whether any further experiments are necessary or practicable

Item (xiii), in the opinion of the Sub Committee, is entirely outside the scope of the scheme and should be omitted

Punjab Spraying Trials Scheme (No 38) —This is only an interim report Three different kinds of sprayers viz, the Sapom Sprayer the Hardie Power Sprayer, and the Orchard Power Sprayer were tried The insecticides used were rosin compound, rosin soap calcium cyanide and nicotine sulphate Though the last mentioned sprayer proved the most [illegible] pest, it was found to be very expensive Th[illegible] per row of cotton could destroy just over 70 [illegible] 4 per acre, against Rs 1-9-5 with Hardie Sprayer which killed over 83 per cent of the pest

The Sub Committee notes that the actual yields on sprayed and unsprayed plots have *not* been stated The Sub Committee desires to emphasise the need for full details of the yields in the next report Individual yields should be shown in order that their statistical significance may be ascertained

Punjab Root Rot Scheme (No 39) —The Sub Committee note that as a result of the investigation, two species of *Rhizoctonia* are regarded as primarily responsible for the disease, but that the vigour of attack is increased when certain other organisms are associated with these two species of *Rhizoctonia* As the scheme has only one more year to run, the Sub Committee suggest —

(a) that these results should be confirmed,

(b) that attention should be concentrated on—

(i) determining whether any soil treatment reduces *Rhizoctonia* attack,

(ii) determining whether *Rhizoctonia* resistant strains of cotton exist

This means a considerable reduction of the proposed programme which is regarded as too diffuse. Items 8, 9, 10, 11 and 12 might, with advantage, the omitted.

Punjab Defibrating and Delinting Scheme (*No.* 40).—The machines were received only recently and such tests as have been done are not considered to be of any value.

Central Provinces Botanial Scheme (*No.* 41).—Late Verum and V. 434 were subjected to severe field tests during the year under report. Late Verum spins up to 34's and is also the best yielder of all new strains. It is expected to cover an area of about 16,000 acres in the current season. V. 434 is next to Late Verum in yield and spins up to 32's. About 2,000 acres are expected to be sown to this strain during the current season.

Work on Bani E.B. 31 and Bani 306 was continued.

A few high yielding white linted strains have also been isolated from Chanda Jari and after further testing, the best of them will be retained for multiplication. A few promising strains of Buri (*Gossypium hirsutum*) also have been selected and attention is being paid to remedy the defect of weak staple.

United Provinces Entomological Scheme (*No.* 42).—The Director of Agriculture states that he expects this report to be ready in time for the next meeting of the Committee. The United Provinces Government are now considering the proposals for actual control measures, financed in part by a cess, proposed by the Committee which they appointed to consider the results obtained. They have asked the Committee to assist them in preparing public opinion for the necessary legislation by the loan of the Publicity Officer. The Director of Agriculture explained that the Publicity Officer would be required for a fortnight in early September and a fortnight in early October to obtain first hand information as to the way in which the control measures are working in the present demonstration areas and for a period of about three months during the cold weather to tour there in the cotton-growing tracts and to carry on propaganda. The Sub-Committee wishes to commend this proposal to the careful consideration of the Central Cotton Committee without committing itself in any way in regard to its attitude towards the proposed Pink Boll-worm Extension Scheme.

Scheme for survey of cottons in Rohilkhand and Bundelkhand, United Provinces (*No.* 43).—The report shows that 1,852 villages out of a total of 2,791, cotton growing villages in Budaun, Bareilly and Naini Tal districts and Rampur State were covered during the year and over 5,000 samples of cotton were collected and critically examined. A particular type of new plant having the external characters of *G. neglectum roseum* with better fibre length was noticed throughout the area surveyed and it will be examined for its purity.

Institute of Plant Industry, Indore (*No.* 44).—To speed up genetic and plant breeding work on cotton by growing two generations a year a small green house has been erected at the Institute. A considerable quantity of new research equipment has also been added. Two strains of Malvi cotton have been finally selected as suitable for distribution in the Malwa tract. As for the Nimar tract selections have been made from *desi* and "Malan" cottons to be tried during the ensuing year. A botanical survey of the cotton crops of Malwa and Nimar tracts shows that the ratios between Malvi and *roseum* types in these tracts are as 6 to 1 and 2 to 7 respectively.

Hyderabad Botanical Research Scheme (*No.* 45).—During the year under report seven pure strains were compared with local mixture Gaorani Umri. Three of these, which are superior to local mixing in fibre length and ginning outturn, were also found to be definitely superior to it in yield.

In another set of varietal tests only Havri-3 proved better yielding than the control (Aurangabad Local). There were also two other comparative tests of other strains to select the most suitable strains for the Gaorani and the non-Gaorani areas.

186 pure line progenies and 263 progenies of new selections were examined. In addition 100 plants selected this year have been retained for study in the next season.

Item 2 in the programme of work should be decided on in consultation with Rai Saheb Sawhney on his return, as the Sub-Committee is of opinion that this work would be too much and would necessitate curtailment of programme in other aspects.

Hyderabad Pink and Spotted Boll-worm Scheme (*No.* 46).—The Sub-Committee have the following observations to make on the progress report on this scheme. There is no need to follow up further the degree of attack in cotton shoots. The work on buds has been limited to the experimental farm and the numbers examined are insufficient. It is necessary to examine buds collected over a much wider area; conclusion 2 under this section is thus premature.

Open flowers —It is unnecessary to remove flowers from the plants for examination This can be effectively done in the field Flowers from a much wider area should be examined

Green bolls —Here also it is necessary to examine material from a wider area and not only from an experimental farm It is noticed that the incidence of the pests increases up to February and March this is unlike the results obtained at Cawnpore The figures presented show that there is a very considerable measure of attack and that work should be continued and expanded

Estimate of crop loss —Much more extensive data would be necessary in order to enable a representative figur
out that the loss of k
bolls but by damage
on page 4 the loss of *kapas* was at least 20 per cent

Hibernation of Platyedra —This is the most important part of the work and it was observed that a large proport on of long cycle larvæ occurred The question of hibernation in the soil should be tackled at once and thoroughly in order to ascertain whether the carry over from season to season in the soil would be sufficient to defeat practical control measures consisting of seed treatment plus a close season

The question of alternative hosts is also important

Programme of work for 1934-35—*Item* (1) —Before this can be done it is necessary to find out whether re infection from the soil takes place when the soil is left undisturbed

Item (2) as already indicated requires to be carr ed out on a broader basis

Item (3) is the essential portion of the scheme but unfortunately no particulars of the work proposed have been presented

Item (4) —The organisat o i of a control area would involve an area of 200 square miles in which

(*a*) all cotton stalks would be removed and burnt (or otherwise disposed of) before the end of May

(*b*) only treated seed would be sown and

(*c*) no untreated seed for cattle food and no unginned *kapas* would be allowed to be kept after the 31st of May If such a control area could be properly worked it would at once give the answer to the question whether control by the above means is practicable or whether it would be defeated by other methods of carry over of the pest from season to season But the Director of Agriculture Hyderabad does not consider that such an area could be worked at present

	Rs
Pay at Rs 450 per mensem	5 400 per annum
Rent for house and laboratory say	600
Travelling allowance say	1 000
Peon	150

The Sub Committee considers that the critical information could be obtained by a fully trained and experienced Entomologist in two years The need for this appointment arises from the fact that the Hyderabad State has no Entomologist on its staff In view of the importance of the problem the Committee might well bear the cost of this Entomologist The Sub Committee does not consider that the Cotton Research Botanist can be expected to do this work in addition to his own

Co-ordination of the Hyderabad Pink and Spotted Boll-worm Scheme and the Central Provinces and Berar Entomological Scheme.—Reference from Special Meeting of Agricultural Research Sub-Committee.

In considering the progress report on the Hyderabad Scheme, the Sub-Committee came to the conclusion that the principal necessity is a fully qualified Entomologist to carry out research work on the lines there specified on Pink Boll-worm under black soil conditions. It is not possible for the Government Entomologist, Central Provinces, to undertake the supervision of any work outside the provinces but he is quite capable of looking after the work for which a grant has been sanctioned. It would however be quite feasible for a mutually agreed programme of work on boll-worm in the Central Provinces and in Hyderabad to be adopted and the Sub-Committee considers that this course should be followed. The Director of Agriculture, Central Provinces, agrees and is further of the opinion that the appointment of an experienced Entomologist for Pink Boll-worm work in Hyderabad would definitely be of assistance to the Central Provinces. The Sub-Committee considers that this is the best method of securing the co-ordination of the two schemes and that it would lead to more effective work although it would not reduce the cost.

Hyderabad Cotton Survey Scheme (*No.* 47).—The year under review is the third working year. As in previous years, 167 seed samples collected from villages were grown on the farm for botanical classification. Also cultivators' fields in 106 representative villages were visited for a study of the botanical species and varieties grown on them. Selections of promising individual types have also been made.

Bikaner Gang Canal Scheme (*No.* 48).—The report shows that of all cottons so far tested *Mollisoni* is best suited to the agricultural conditions obtaining at Ganganagar. Of the exotic cottons tested 289F seems to be fairly promising. Attention is also being paid to the selection of better strains from Mollisoni.

Baroda Root Rot Scheme (*No.* 49).—This scheme has completed its second year. Cultures from affected roots of cotton have given again the same organisms obtained the previous year. These were also found in the roots of other plants suffering from similar disease. The Sub-Committee notes that here, as in the Punjab, a species of *Rhizoctonia* is considered the main cause of the disease. Plants less susceptible to the disease have also been selected.

Burma Cotton Improvement Scheme (*No.* 50).—The report is for its third year of work. 18 demonstrators were at work and demonstrations of improved methods of cultivation were conducted on 57 holdings. It is stated that the average yield of seed cotton per acre on the demonstration holdings was much more than that in the respective "*Kwins*" in which they were located. Improved methods were adopted by 885 cultivators during the year under report, and the total area covered was 19,997 acres.

The Sub-Committee confirmed the opinion of the Special meeting of the Agricultural Research Sub-Committee (June 1934) that the scheme should be continued till the end of its sanctioned period and that no further extension should be granted.

Plant puller propaganda scheme in Surat and Broach Districts (*No.* 74).—Propaganda through posters, leaflets and magic-lantern lectures was carried out in Broach and Surat districts during the months of March to June 1934. In Broach District 3,440 pullers and in Surat District 7,161 pullers were purchased by the cultivators.

(2) *Seed Distribution and Extension Schemes.*

Hubli Scheme (*No.* 51).—In 1933–34 season 1,266,320 lbs. seed sufficient to cover about 131,708 acres was distributed in the area served by the Hubli Cotton Sale Society besides the 326,445 lbs. supplied to other parts of Dharwar district and elsewhere. The Department of Agriculture arranged during the year 24,000 acres of reserved area.

Gadag (*Extension*) *and Gadag* (*Supplementary*) *Schemes* (*No.* 52).—In 1933–34 the Society distributed 758,397 lbs. pure seed, enough to cover an area of about 75,000 acres, and the Department of Agriculture organised a seed growing area of about 24,620 acres.

Surat Scheme (*No.* 53).—During the year under report, 886,771 lbs. of 1027 A.L.F. seed were distributed in the Surat tract besides the 1,660,980 lbs. supplied to adjoining Indian States. An interesting feature is that 285,000 lbs. seed was purchased for sowing by the Sonsek Group of Co-operative Societies which had hitherto refused to grow this cotton.

Khandesh (Banilla) Scheme (No 54)—The scheme is divided into six stages from the production of selfed seed on an area of five acres to covering the whole Khandesh tract with pure seed The scheme has now completed the first four stages The actual area sown during the year was 12 900 acres and the total quantity of seed obtained from this area was about 1,450,000 lbs which would be enough for over 100,000 acres Prices obtained for Banilla were satisfactory

The Sub Committee considered that spinning tests on Banilla should be supplied along with the Progress Report as the Committee should keep an eye on whether the cotton has continued to deteriorate as in the first few years it was grown

programme laid down would have been adhered to More seed was expected to be purchased and stocked for distribution during the current year

Sind Scheme (No 56)—During the year under report the work continued on the

over 27 W N and 289 F 1 was also proved by the results obtained from the comparative tests of these cottons The publicity and propaganda work of the past 2 to 3 years has resulted in an area of about 1,500 acres being brought under cotton during the year by *zamindars* themselves

Left Bank in 22 centres in
1 are best suited to Eastern
Southern Jamrao tract, in
he other two varieties As
a result of these demonstrations the area under cotton in this tract has increased from 3,000 acres in 1931–32 to 28 000 in 1933–34

Madras (Tiruppur) and Co 2 Schemes (No 57)—In 1932–33, the Department of Agriculture organised a seed farm area of nearly 2 000 acres which produced 498,600 lbs pure seed, sufficient to cover an area of about 20,000 acres

In 1933–34, the seed farm area, as stipulated was extended to more than 4,000 acres

as possible consistent with clearness Very little idea was given as to what had been spent from the funds sanctioned The scheme however worked satisfactorily

stocked by the two Societies, the rest being left with the ... Department of Agriculture arranged, as usual, a seed farm area of 2,895 acres under their own control and the seed secured from this area will be handed over to the Societies

It has been admitted in the Progress Report itself that the scheme generally did not work satisfactorily The Sub Committee considers that the scheme as at present exists should be closed down and a fresh one started if it overcomes all the difficulties encountered in the past season, proposals for which are mentioned in the Report

59)—In 1933-34 season, the Department of
ure seed which was enough to sow an area
bales of pure Verum cotton The premium
45 on Broach F O R Bombay basis

3 864 khandies of Verum 262 seed and 181 khandies of Late Verum, V 434 and Bani seed have been stocked for distribution in 1934 35 season

The working of the scheme was very satisfactory and the Sub Committee recommends that it should be combined with the new Extension Scheme already sanctioned as suggested by the Director of Agriculture (Subject 67)

Hyderabad Scheme (*No.* 60).—During the year under report, the Department of Agriculture purchased from the Sale Societies 330,260 lbs. Jayawant and Upland seed and distributed the whole quantity in 136 villages for sowing on an area of nearly 17,100 acres. In addition, enough Jayawant seed for another 7,000 acres was distributed by the Kopbal Sale Society and the cultivators themselves.

The Director of Agriculture informed the Sub-Committee that arrangements are being made by the Hyderabad Agricultural Department to organise local seed production under their supervision in order to obviate the necessity of importing large quantities of seed from the Bombay Presidency.

Statement of costs for cotton ginned at the Lyallpur Ginnery (*No.* 61).—Total cost of ginning one maund of *kapas* was Re. 0-2-9 for saw gin and Re. 0-7-10 for roller gin.

Baroda Scheme (*No.* 62).—28,000 lbs. pedigree seed and 11,200 lbs. pure seed of 1027 A.L.F. cotton, enough to cover an area of roughly 2,000 acres were distributed for seed multiplication to the members of the four cotton groups at Maroli, Umbhel, Dhundhesa and Kosamba. In addition, from the five seed depots at Maroli, Vesma, Umbhel, Baben and Kosamba, 218,400 lbs. of pure 1027 A.L.F. seed received from the Bombay Agricultural Department were distributed on mass scale.

The Sub-Committee suggests that a larger area than that suggested in the proposals should be controlled in view of the fact that Baroda has an area of nearly two lakhs of acres under cotton.

(B) Report of the Agricultural Research Sub-Committee on Extensions and Modifications of old schemes.

(1) *Agricultural Research.*

Scheme for Survey of Small Leaf Disease of Cotton in Bombay Presidency.—The Sub-Committee does not recommend the extension of this scheme as the collection of further information will serve no useful purpose.

Punjab Spraying Trials Scheme—Modification of programme.—The Sub-Committee approves of the action taken by the Director of Agriculture.

Gujerat Plant Puller Propaganda Scheme.—As the original scheme was highly successful during the year and in view of the good work accomplished the Sub-Committee recommends the extension of this scheme for a period of two years at an estimated cost of Rs. 19,010 to be financed from the remaining balances saved under the Clean-up Scheme.

(2) *Technological Research.*

Technological Assistant, Gujerat.—The Sub-Committee recommends the extension of the appointment of the Technological Assistant at Surat for a period of five years.

(3) *Seed Distribution and Extension.*

Central Provinces Verum Scheme.—At the request of the Director of Agriculture, Central Provinces, the extension of this scheme was not separately considered, as this scheme is incorporated in the revised proposals for the " Scheme for extension of long staple cotton in the Central Provinces and Berar " submitted at this meeting (*vide* Subject 87). The Sub-Committee recommends that an additional grant of Rs. 1,35,022 spread over a period of five years and two months be made to this extended scheme in addition to the grant already made at the last meeting of the Committee.

(C) Report of the Agricultural Research Sub-Committee on New Schemes.

(1) *Agricultural Research.*

Gujerat Root Rot Scheme (*No.* 63).—In view of the fact that schemes on the same subject are in progress in the Punjab and Baroda State and are obtaining results, it seems unnecessary to sanction another scheme on the same subject.

Scheme for the study of " Lang " caterpillar pest in Gujerat (*No.* 64).—" Lang " (*Chickling Vetch*) is a crop which gives the cultivator a gross return of Rs. 30 per acre for its grain and fodder besides being a short period good leguminous rotation and cleaning crop for cotton, and a caterpillar pest has lately been causing damage to this crop in Gujerat to the extent of 30 to 90 per cent. The Bombay Department of Agriculture, therefore, proposed an investigation of this pest for four years and four months at an estimated cost of Rs. 11,683 *plus* leave salary.

In the opinion of the Sub Committee this is not a cotton problem and not suitable for a grant from the Central Cotton Committee.

Gujerat Goghari Survey Scheme (*No* 65) —This scheme is a necessary corollary to the accepted policy of the Committee to grow only 1027 A L F in the tract lying south of

estimated cost of Rs 5,000.

Baroda Goghari Survey Scheme (*No.* 66) —This scheme is, in its object, identical with the Gujerat Goghari Survey Scheme, and will take concerted measures in the Baroda State territories included in the tract The Sub Committee recommends that the scheme be sanctioned for a period of five years at an estimated cost of Rs 5,000

Punjab Jassid Scheme (*No* 67) —This scheme which was referred back to the Director of Agriculture, Punjab, at the last meeting for modification of programme, is now resubmitted

considers that for the pre
Lyallpur If the Direc
for an Assistant for the

Red Leaf Disease Scheme (*No* 68) —This disease of American cotton in Mysore is said to cause an annual loss of about 520 bales, and is a factor which limits the cultivation of American cotton.

Red Leaf in cotton is considered to be an All India problem It is part of the larger problem of the satisfactory acclimatisation of American cottons in India A good deal of work has already been done on it in other parts of India It is therefore recommended that the Secretary be requested to obtain all relevant information from workers on the problem in other areas, particularly Sind, the Punjab, the Institute of Plant Industry and Coimbatore. The scheme should be considered in the light of the information collected, at the cold weather meeting

Bombay Seed Defibration Scheme (*No* 73) —The Vice President offered to have one defibrating machine put up at Palej in connection with ginneries there, and to supply seed and power free as required The machine would be provided and installed from the Indian Central Cotton Committee funds and would remain the Indian Central Cotton Committee's property. The Sub Committee willingly agreed to accept this kind offer.

in connection with the Khanewal Cotton growing Syndicate's plant at that place.

Presidency, then drew up a revised
year, which is appended, with an

Baroda Plant Puller Pro
Plant Puller Propaganda
were satisfactory, similar

The Sub Committee approves in general the Baroda Scheme and recommends it for adoption at an estimated cost of Rs 9,380 It suggests however that the pay of the Graduate Assistants should not exceed Rs 70 per mensem and that after the first year of intensive propaganda a larger number of *Kamgars* on lower pay might be employed instead of the more expensive Fieldmen

(2) *Technological Research.*

Technological Assistant in Sind —The Sub Committee recommends the appointment of a Technological Assistant in Sind for a period of three years.

(3) *Seed Distribution and Extension.*

Bagad Seed Distribution and Extension Scheme (*No* 69) —The Sub Committee reconsidered this scheme in accordance with the decision of the Special meeting of the Agricultural Research Sub Committee.

Mr. Patel in forwarding the Scheme wished to have an organisation ready to put out a new Cross with which he is working and which he expects will be considerably better than

Wagad 8. The locality has peculiar local difficulties in getting a new cotton taken up and it was his suggestion that the Department would like to work out a way which would be likely to succeed so that when the cotton is ready for distribution no time would be lost in getting it taken up. In view however of the decision of the Special Sub-Committee held in June, this Sub-Committee feels that it cannot recommend a scheme which has an element of experiment in it. It feels however that the Committee might help in this work and would suggest that Mr. Patel be asked to put up a modified scheme to cover the initial stages of testing and distribution.

C. 402 Scheme (No. 81).—This scheme has already received the approval of the Agricultural Research Sub-Committee, the final decision regarding funds being left to the Standing Finance Sub-Committee which decided in February 1934 that it should not be put into operation for the present.

The Sub-Committee now recommends that the question of starting it from the year 1935 should now be reconsidered. The area suitable for the cotton under this scheme is about 30,000 acres spread over two districts and may be extended over four other districts covering another 30,000 acres. The crop being irrigated yields about 800 lbs. per acre.

In view of the importance of increasing the supply of staple cotton in India, the Sub-Committee considers that this scheme is of sufficient importance to warrant a grant from the Indian Central Cotton Committee, and that it should be considered by the Standing Finance Sub-Committee in relation to the financial position of the Committee.

(D) Report of the Agricultural Research Sub-Committee on Research Students.

The Sub-Committee considered and approved the progress reports and programmes of work of the following research students :—

(1) Mr. Tashkir Ahmed under training in Entomology at Cambridge under Dr. A. D. Imms.

(2) Mr. Sant Singh Verma under training in Plant Physiology at London under Professor Blackman.

(3) Mr. S. N. Venkatramanan under training in Statistics at Calcutta under Professor P. C. Mahalanobis.

The Sub-Committee recommends the proposed extension of Mr. Sant Singh Verma's scholarship by five months.

In view of the nature of the breeding work likely to be undertaken by Mr. Venkatramanan, it is suggested that the Secretary should write to Professor Mahalanobis and ask him if some consideration may be given to work on third degree statistics as outlined in a paper by Fisher, Immer and Tedin on their use in the study of quantitative inheritance.

The Sub-Committee also approved of the final reports of Mr. Brajandra Nath Bhargava (Cotton Marketing and Economics, Lucknow) and Mr. Bhola Nath (Plant Breeding and Cytology, Indore). The former need not be published, and the latter may be included in papers to be published at a later stage. The modified programme of work of Mr. Shama Iyengar due to the curtailment of study leave was also approved.

The Sub-Committee notes that Mr. Bhola Nath has been offered a post at Indore, and that Mr. Madan Lal Bhatia is proceeding to Cambridge for further studies, and that there is no post open for Mr. B. N. Bhargava.

In view of the possibility of a U. P. candidate proceeding to Cambridge to study Genetics under Professor Biffen, the Sub-Committee recommends that the award of a scholarship in Genetics sanctioned previously may be held in abeyance.

The Sub-Committee recommends the following training grant, the application * for which is attached :—

(1) Rs. 100 per mensem to Mr. Nazir Ahmad (Punjab) for two years for studies in Entomology at the Imperial College of Science and Technology, London.

The Sub-Committee considered Mr. Akbar Ali's (Punjab) application for a training grant of Rs. 150 per mensem for higher studies in plant breeding in England and recommends that he be given one year's training in plant breeding at Indore under Mr. Hutchinson. Further consideration of his application may be postponed until a report is received on his work at Indore from Mr. Hutchinson.

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* Not printed.

(E) General.

Disease of Malformation in cotton.—The Sub Committee noted the replies received from the Directors of Agriculture on this subject

Minimum staff in each scheme.—The Sub Committee considered Mr. Ramanatha Iyer's letter on the subject and decided that a uniform standard of staff for all schemes of a similar nature is neither possible nor desirable. It agreed, however, that staff proposals should be carefully scrutinised.

Monograph on Surat Physiological Research Scheme.—In the opinion of the Sub-
t of the research was to
he has emphasised the
out clearly the effect of
ud and flower retention
ub Committee considers
thor has complied with

is in doubt.

the Sub Committee advises this course.

The report may then be submitted to the Imperial Council of Agricultural Research direct

Madras F
for approva
recommend
to sanction the list of apparatus

The Sub Committee decided that the composition of the Sectional Sub Committees with the subjects allotted to them be intimated well in advance so that members may have sufficient time to acquaint themselves thoroughly with the schemes which they are expected to comment on.

The Sub Committee also decided that in Seed Distribution Schemes a short *resumé* should be given from year to year showing the progress made not only in the year under report but in previous years This is to enable the Committee to see at a glance what progress has been made from the beginning of the scheme.

The Sub Committee recommends that in all Seed Schemes intensive propaganda should be carried out by all possible means against the inferior cotton grown in the tract

Officer.

Enclosure I.

Revised Estimate for a Desegundo Defibrating machine to be installed at "Palej" at Sir Purshotamdas Thakurdas Ginning Factory.

Capital Expenditure.

		Rs
1.	One Desegundo Defibrating machine complete with Fast and Loose Pulleys	2,850
2	Driving Pulley on countershaft with suitable belting	150
3	Lint Chamber	150
4	Feeding platform	110
5.	Spare fibrating elements	87
6.	Transport, insurance and fixing	250
7.	Sundries	100
	Total initial outlay	3,697
	Say	3,700

Recurring Expenditure.

1.	One Operator on Rs. 70 per mensem and a mate on Rs. 30 per mensem for six months	600
2.	Travelling allowance	150
3.	Cost of seed for treatment and observation	500
4.	Unskilled labour, transport on finished seed and sundries.. ..	500
	Total recurring expenditure per year ..	1,750

The output of the machine per hour is 8 cwts. and if it is worked for 100 working days in the season at 8 hours a day, it will deal with 6,000 to 6,400 cwts. of seed. The defibrated seed can be sent out to the Cotton Breeders for germination tests and to the Live Stock Expert to Government for feed tests. A portion of the seed can also be sent out for hulling and expressing oil through Rotary mills and through the Oil Expeller with a view to see whether the expensive and complicated method of expressing oil with a Hydraulic Press can be eliminated. The last experiment will be conducted on a very small scale and will not involve much expenditure as it will be carried with those who are prepared to help and co-operate with the Department.

APPENDIX VII.

SUBJECT 71—*Report of the Standing Finance Sub-Committee—*

(*a*) Balance Sheet as at March 31st, 1934.

(*b*) Final Accounts, 1933–34.

(*c*) Revised Estimates, 1934–35.

(*d*) Budget for 1935–36 (Government servants).

The Standing Finance Sub-Committee held five meetings since the last meeting of the full Committee in January 1934. Mr. J. O. G. Barnes having retired, his place on the Sub-Committee was taken by Mr. G. C. R. Coleridge and on the latter's resignation, Mr. F. G. Travers has been appointed in his place. Mr. J. Vonesch has temporarily gone out of India, and under Rule 4 of the Rules under Section 16 of the Indian Cotton Cess Act, Seth Sakarlal Balabhai has been appointed to fill this casual vacancy.

2. A Balance Sheet of the Committee's accounts, as at March 31st 1934, is submitted. This shows the income and expenditure under the budget heads from the beginning of the Cotton Cess, i.e., for eleven years, and has been prepared from the audited accounts. A Balance Sheet of the Provident Fund is also enclosed.

3. A statement of accounts for the year 1933–34 as audited by the Committee's Auditors is attached, together with a detailed account of the Final Accounts. From this it will be seen that cotton cess receipts amounted to Rs. 5,83,672-8-7 against a revised estimate of Rs. 5,00,000. Interest on investments came to Rs. 1,32,624-0-5 against Rs. 1,33,700 estimated. Expenditure amounted to Rs. 9,42,986-13-9 against the revised estimate of Rs. 12,34,925-5-0. There were savings under practically every head of expenditure and these are available for future use, if required, except the savings under "Administration", "Improvement of Cotton Marketing", "Printing and Propaganda", "Technological Laboratory—Working" and "Research Studentships." The closing balance on the 31st March 1934 was Rs. 27,49,659-14-7 against Rs. 29,69,850-9-9 last year, so that the Committee had to spend Rs. 2,20,190-11-2 from the Reserve.

A statement of the Provident Fund account for 1933–34 is also attached.

4. The Revised Estimates of Receipts and Expenditure for the current year are enclosed and are subject to alterations recommended by the Agricultural Research Sub-Committee and approved by the full Committee. No change has been made in the estimates for Cotton Cess and Interest. Due to heavy sale proceeds, the Miscellaneous Receipts have been raised to Rs. 4,000 against the estimate of Rs. 2,500. The expenditure has been estimated at Rs. 13,78,021-8-0 against the sanctioned budget estimates of Rs. 13,68,960-4-0, the increase of Rs. 9,061-4-0 being chiefly due to additional requirements under the various schemes.

5. As required by the Cotton Cess Rules, the Budget for 1935–36 for the pay of Government officers and other permanent Government servants employed by the Committee is submitted for formal sanction.

6. The Sub Committee also dealt with the Government accounts for 1933-34 for the fumigation of American cotton and its recommendations form a separate subject on the agenda of the Committee.

7. The Indian Central Cotton Committee at its last meeting, while adopting the report of the Agricultural Research Sub Committee, approved of the order of priority in which the new research and seed schemes and the extensions of schemes already under operation might be sanctioned, and agreed to refer to the Standing Finance Sub Committee the priority list in order that it might take into account the present

[illegible]

8 The Joint Sub Committee of the Imperial Council of Agricultural Research and the Indian Central Cotton Committee at its meeting held in January 1933 agreed to Bengal being brought in the s[illegible] tion of sugar-cane, cotton an[illegible]

[illegible] ld be met by the Viswa Bharti Institute. This [illegible]

could be met from savings in the grant already sanctioned

9 The Sub Committee sanctioned the re allotment of Rs 391 which had already been surrendered for expenditure during the year 1933-34 on the Burma Cotton Improvement Scheme.

[illegible] the question of payment of travelling allowance [illegible] id its Sub [illegible] ises up to a [illegible] ly allowance [illegible]

11 The Sub Committee, on receipt of a telegram from the Government of India announcing the continuance for one more year of the emergency cut of 5 per cent in salaries of their staff, decided to follow the Government lead and apply a similar cut to [illegible] who are already exempt from it in *lieu* of their [illegible] ss the Board of [illegible] nother year the [illegible] fall in line with [illegible] exempted from [illegible] act is exempted from it

[illegible] the question of the revision of pay of Junior [illegible] l to fix it on Rs 60—3—90 in the place of the [illegible] with retrospective effect from the 1st October [illegible]

13 The Local Sub Committee at its meeting held on the 19th January 1934 decided [illegible] East India Cotton Association and the Indian Central [illegible] to the Bombay Government for abolishing road tolls [illegible] lorries carrying *kapas* and ginned cotton As the [illegible]

14. As required by Rule 9 (1) (*a*) of the Indian Cotton Cess Rules, the Standing Finance Sub-Committee appointed an Expert Sub-Committee consisting of the President, Vice-President and Messrs. Stewart, Burt and Saklatvala to examine the applications for the appointments of a Plant Physiologist and a Bio-Chemist in connection with the scheme for investigation into the causes of the periodic failure of American cotton in the Punjab. The Standing Finance Sub-Committee considered the recommendations of the Expert Sub-Committee and approved of the appointment of Professor R. H. Dastur as Plant Physiologist on a starting pay of not exceeding Rs. 900 in the scale of Rs. 900—40—1,060 subject to such cuts as may be in force from time to time. The Sub-Committee also approved of the appointment of Mr. A. V. Varadaraja Iyengar to the post of Bio-Chemist as recommended by the Expert Sub-Committee.

15. The Technological Research Sub-Committee at its meeting held in January 1934 agreed to the Laboratory undertaking special tests for private bodies and individuals provided no inconvenience was thereby caused to the ordinary work of the Laboratory and authorised the Standing Finance Sub-Committee to fix the scale of fees for such tests in consultation with the Director, Technological Laboratory. The following scale of fees proposed by the Director was approved by the Standing Finance Sub-Committee, subject to such alterations as may be found necessary at the end of six months :—

		Rs.	a.	p.
(1)	Variety of Cotton (Broad classification)	25	0	0
(2)	Identification of fibres (microscopical tests)	15	0	0
(3)	Percentage of size	7	8	0
(4)	Percentage of grease	7	8	0
(5)	Percentage of free acid	15	0	0
(6)	Presence of mildew	7	8	0
(7)	Causes of mildew growth	30	0	0
(8)	Percentage of immature fibres :—			
	(*a*) in lint (or *kapas*)	10	0	0
	(*b*) in yarn or cloth	15	0	0

16. The Sub-Committee considered the question of charging the Central and Local Government Departments for tests carried out at the Technological Laboratory and decided that as usual no fee should be charged for any tests made for the Department of Agriculture and that all tests made for any other Government Department should be charged for at 25 per cent. below ordinary rates.

17. The Indian Central Cotton Committee at its meeting held in January 1934 agreed to refer to the Standing Finance Sub-Committee the question of the revision of the grade of pay of Head Clerk's post at the Technological Laboratory. The Sub-Committee considered the subject at two of its meetings and decided finally that the scale of pay of the Head Clerk should be raised from Rs. 150—10—200 to Rs. 150—10—200 (Efficiency Bar)—10—240, provided that except by a resolution of the Standing Finance Sub-Committee no successor of Mr. Majumdar, the present Head Clerk, be permitted to pass the Efficiency Bar.

18. The Sub-Committee considered a letter addressed by the United Provinces Government to the President of the Committee asking for loan of the services of the Publicity Officer for a period of one year in the first instance, free of cost, the Local Government paying only his travelling allowance. The Sub-Committee decided that Mr. Mihra's services might be lent to the United Provinces Government for a period not exceeding six weeks provided the Local Government were prepared to pay his travelling allowance.

19. The Sub-Committee reported to the last meeting of the full Committee that the Punjab Government had raised an objection to the appointment of Mr. Mohammed Afzal as Cotton Research Botanist in the Punjab and that a reply to their objection had been submitted to the Government of India justifying the appointment of Mr. Afzal. The Punjab Government have since withdrawn their objection. The Sub-Committee considered and approved of the proposal of the Punjab Government fixing the pay of Mr. Mohammad Afzal at Rs. 480 with the usual annual increment in the scale of Class I—Provincial Agricultural Service, *viz.*, Rs. 360—40—720/40—800—50—1,150.

20.' The Sub Committee considered the request of the Punjab Government that, ... 'ment of Mr. Moham- ... ump sum might be ... them to invite one of the scientists engaged on cotton research work in other parts of the world to visit the Punjab in the course of the cold weather and advise the Department of Agriculture on the best and most up to date methods of investigation. The Sub Committee decided that any specific proposal put forward by the Punjab Government should be considered on its own merit and that no general sanction was necessary.

21. The Sub Committee sanctioned a *total sum* of Rs 7,600 *for* the purchase of additional machinery for the Blow Room in connection with the scheme for the extension of the Technological Laboratory sanctioned by the Committee at its last meeting.

22 The Indian Central Cotton Committee at its last meeting agreed to the proposal of the Central Provinces Government that the pay and allowance of Mr D. N. Mahta, Economic Botanist to Government, Central Provinces, should be met from the Committee's funds provided a second Economic Botanist was appointed by the Local Government. The Sub Committee considered the reply of the Local Government agreeing to relieve Mr Mahta of all work other than cotton and to make their own arrangement for the work on other crops and decided to pay Mr. Mahta his full pay and a duty allowance of Rs. 200 per month.

23. The Sub Committee sanctioned an additional grant of Rs. 750 for 1933-34 for the Sind Physiological Research Scheme for the reconstruction of the field Laboratory, provided the additional grant could be met from the savings of previous years.

24. The Sub Committee at its meeting held on the 20th November 1933, while considering the revised estimates of expenditure during the extension period of the Madras Pempheres and Physiological Scheme, decided that in view of this scheme being almost entirely for the benefit of the Madras Presidency, the Local Government ...

as in the case of other provinces.

25. ... the extension of the scheme, ... Botanist ... Class I ... the Second ... of ... the ... ist, ...

26. The Sub Committee sanctioned various new items of expenditure required in ... the United Provinces, ...

already sanctioned. A supplementary grant of Rs 1,000 was also made to the Bombay Cotton Forecast Improvement scheme for meeting the travelling expenses of the Officer-in charge in visiting Indian States.

7. The Sub Committee accepted the resignation of Mr. D. F. Kapadia, Assistant Technologist, Technological Laboratory, Matunga, and decided that the question of his leave should be referred to the full Committee at this meeting This subject is dealt with separately on the agenda of the Committee.

... ts outside ... maximum ... all other

29. The Sub-Committee considered the Audit Report for the year ended 31st December 1932 of the Hubli Co-operative Cotton Sale Society and agreed to pay to the Society the maximum subsidy of Rs. 5,000 and interest of Rs. 596-10-0.

30. The Sub-Committee recorded the following remarks of the Government of India while conveying sanction to the budget of the Committee for the year 1934–35 :—

"The Government of India understand that the attention of the Indian Central Cotton Committee has been drawn to the danger of the depletion of its reserve funds and that steps have been taken to avoid such a contingency. They trust that effective measures will be adopted towards this end."

31. The Indian Central Cotton Committee, at its last meeting, resolved that the Budget of the Institute of Plant Industry, Indore, for 1934–35 be reduced by Rs. 40,000 or such sum as the Standing Finance Sub-Committee might decide. As per powers delegated to it by the full Committee, the Sub-Committee considered the subject at three of its meetings, but no final decision has yet been arrived at as the negotiations between the President of the Committee and the President of the Board of Governors of the Institute are not yet completed.

32. The Sub-Committee considered and refused the request of Rai Saheb Kalidas Sawhney, Cotton Research Botanist, Parbhani, for a reconsideration of the Committee's decision arrived at in August 1933 refusing him permission to visit, at the Committee's expense, Egypt and various institutes and research stations in England. The Sub-Committee, however, sanctioned the extension of his leave by ten days on half-average pay and agreed to the proposal of the Hyderabad Government to grant an allowance of Rs. 50 per mensem to the Deputy Director of Agriculture, Parbhani, for being in additional charge of the Committee's Botanical Research Scheme during the absence on leave of the Cotton Research Botanist.

33. The Sub-Committee refused the request of the Burma Government for additional grant to meet the travelling allowance of the Deputy Director of Agriculture, Myingyan Circle, in charge of the scheme for the improvement of cotton in the Wagale tract of Burma.

34. The Sub-Committee sanctioned the extension of the Madras Herbaceum Research Scheme for a period of one year from the 1st June 1934 at an estimated cost of Rs. 8,803.

35. The Sub-Committee as decided by the full Committee at its meeting in February 1933 sanctioned a sum of Rs. 1,000 required for expenditure during the current financial year on the travelling allowance of the Officer in charge of the Rohilkhand and Bundelkhand Cotton Survey Scheme, United Provinces, subject to reconsideration of this item as soon as the orders of the Government of India on the status of the Committee's servants were received.

36. While considering the Progress Report on the Sind Physiological Research Scheme, the Committee at its meeting held in August 1933 desired to draw the attention of the Bombay Government to the fact that considerably more land was required for the field experiments now being conducted by the Physiological Section at Sakrand. The Sub-Committee considered the proposal of the Chief Agricultural Officer in Sind for additional expenditure during the current year of Rs. 1,550 for the lease, development and cultivation of the newly leased land as recommended by the Committee and decided that, in view of the accepted policy of the Committee not to provide land or buildings, the Chief Agricultural Officer in Sind should be requested to approach the Government of Bombay for the lease and development of the land and that, in the meanwhile, he might be advanced the whole amount of Rs. 1,550 till he obtained necessary sanction from his Government.

37. The Audit Reports of the Gadag Co-operative Cotton Sale Society for the years ending 31st December 1932 and 1933 were considered by the Sub-Committee when it was decided that the Society should be paid as follows :—

Rs.	a.	p.	
835	10	0	for interest and Rs. 2,547-1-4 for subsidy during 1932-33.
662	2	6	for interest and Rs. 5,000 for subsidy during 1933-34.

38. The Sub-Committee sanctioned leave to Mr. R. P. Richardson, Spinning Master of the Technological Laboratory (now Officiating Director), for four months and three days from the 10th September 1934 or any subsequent date which might be suitable to both Mr. Richardson and Dr. Nazir Ahmad. The Sub-Committee also agreed that Mr. Richardson should be provided with a return Second Class "A" ticket from Bombay to London.

39 At its meeting held in March last, the Special Sub Committee appointed by the Committee to consider the question of a wider market for Indian cotton decided that Dr Nazir Ahmad, who was on leave in Europe, should be asked to get into touch with

[illegible]

Rules)

40 The Technological Research Sub Committee at its last meeting decided that quotations of reliable firms of architects should be obtained for the extension of the Technological Laboratory The Sub Committee considered quotations offered by six firms and decided to appoint Mr Ditchburn as Architect for extensions to the Technological Laboratory

41 The Committee at its last meeting decided that during the absence on leave of Dr Nazir Ahmad for a period of 4 months and 24 days Mr R P Richardson should officiate as Director in consideration of which he should be granted an honorarium of Rs 1,000 In view, however, of the extension of his acting period for one month due to Dr Nazir Ahmad s deputation, referred to in paragraph 39, the Officiating Director applied for an increase of the honorarium already sanctioned to him The Sub Committee after considering the application decided that in view of the strong opinion expressed by several members of the Technological Research Sub Committee against sanctioning any acting allowance, Mr Richardson s request should not be complied with

42 The Sub Committee sanctioned the extension by two months, up to the 31st October 1934, of the scholarship period of Mr T R Narayanan, who has been sent to Cambridge for training in Plant Physiology prior to his taking up the post of Physiologist in the Madras Pempheres and Physiological Schemes

Balance Sheet as at 31st March 1934.

RECEIPTS.

	Rs.	a.	p.	Rs.	a.	p.
Cotton cess receipts ..				91,08,563	8	6
Interest account—						
Amount received on investments	13,45,676	8	10			
Add—Refund of Income-tax deducted from interest	17,078	0	0			
	13,62,754	8	10			
Less—						
1. Interest paid in advance at the time of purchasing Government Paper (since recovered), interest on temporary overdraft and Bank's commission for collection of interest..	43,712	8	9			
2. Interest credited to Provident Fund account	4,886	6	2			
3. Bank's withdrawal charges for securities sold	2,366	1	0			
4. Income-tax deducted on interest	19,967	12	8			

EXPENDITURE.

	Rs.	a.	p.	Rs.	a.	p.
I. A. Administration ..				14,28,333	3	5
B. *Improvement of Cotton Marketing*—						
1. Cost of exhibits, moisture tests etc...	74,779	0	2			
2. Cost of growing cotton in India ..	67,500	0	0			
				1,42,279	0	2
C. *Seed Distribution and Extension Schemes*—						
I. *Bombay*—						
1. Hubli	25,472	13	9			
2. Gadag	27,988	4	9			
3. Gadag Supplementary..	15,752	5	11			
4. Khandesh	89,407	6	9			
5. Surat	25,589	0	7			
6. Athani	7,380	4	0			
II. *Madras*—						
1. Pay and allowance of Business Manager, Tiruppur ..	8,729	0	0			
2. Co. 2	7,828	12	6			
3. H-1	4,480	0	0			
III. Sind	86,245	4	11			
IV. Hyderabad	17,148	12	9			
V. Central Provinces ..	71,310	11	5			
VI. Lyallpur Ginnery ..	17,740	5	0			

Item	Rs. a. p.	Rs. a. p.
5. Brokerage for sterling loan sold ..	291 9 0	
6. Provision for Sinking Fund ..	4,728 7 0	
	75,952 12 7	12,86,801 12 3
Profit on conversion and sale of securities		53,671 12 7
Sinking Fund account ..		4,728 7 0
Miscellaneous receipts ..		23,466 5 2
Refund from Provident Fund for contributions disallowed .		3,391 1 11
Suspense receipts		1 0 0
arried over ..		1,04,80,623 15 5

Item	Rs. a. p.	Rs. a. p.
D. *Printing and Propaganda*—		
1. Publicity and Propaganda ..	41,309 10 0	
2. Printing and Distribution	23,838 7 0	
		65,148 1 0
E. Statistical Research ..		5,463 0 0
II. *Technological Research*—		
(1) *Technological Laboratory*—		
A. Capital Expenditure—		
1. Land and Buildings .	3,77,917 7 3	
2. Machinery .	86,336 1 8	
3. Freight	7,502 2 8	
4. Apparatus and Equipment	41,558 3 7	
5. Machinery Workshop.	5,789 8 3	
B. Working Expenses .	13,59,655 4 0	
(2) Provincial ..	50,633 6 3	
		19,29,392 1 8
Carried over ..		39,75,688 8 7

BALANCE SHEET AS AT 31ST MARCH 1934—*contd.*

RECEIPTS.

	Rs.	a.	p.
Brought forward ..	1,04,80,623	15	5

EXPENDITURE.

	Rs.	a.	p.	Rs.	a.	p.
Brought forward ..				39,75,688	8	7
III. Research Studentships ..				2,20,814	2	6
Agricultural Research Grants—						
IV. *Bombay*—						
1. (*a*) Surat Physiological.	2,45,139	11	3			
(*b*) Surat Physiological Writing-up ..	6,035	7	6			
2. (*a*) Surat Boll-worm ..	1,14,509	9	7			
(*b*) Surat Boll-worm Propaganda ..	94,844	3	3			
(*c*) Surat Boll-worm Writing-up ..	2,315	3	0			
3. (*a*) Dharwar Wilt ..	1,82,836	4	11			
(*b*) Dharwar Wilt Writing-up ..	10,757	14	3			
4. Khandesh Cotton Breeding ..	26,573	6	0			
5. Co-ordination of Cotton Research ..	1,749	7	6			
6. Jalgaon Cotton Breeding ..	13,394	8	9			
7. Broach Cotton Breeding ..	19,738	11	3			
8. Small Leaf Disease ..	1,828	0	0			

	Rs.	a.	p.
Carred over	1,04,80,623	15	5

Item	Rs.	a.	p.	Rs.	a.	p.
V. *Madras*—						
(a) Herbaceum ..	1,04,482	12	2			
(b) Pempheres and Physiological ..	50,439	5	9			
(c) Fodder Cholam ..	7,757	10	4			
(d) Nadam Cotton Breeding ..	2,328	0	0			
VI. *Punjab*—						
(a) Botanical ..	4,08,667	0	7			
(b) Entomological ..	1,34,251	12	4			
(c) White Fly ..	30,610	5	0			
(d) Root Rot ..	5,403	7	0			
(e) Spraying Trials ..	6,958	12	0			
(f) Defibrating and Delinting ..	7,700	0	0			
VII. Central Provinces .	3,09,831	12	3			
VIII. *United Provinces*—						
(a) Pink Boll worm ..	1,46,731	6	10			
(b) Rohilkhand and Bundelkhand Cotton Survey ..	4,985	0	0			
IX. Institute of Plant Industry, Indore ..	12,21,343	12	0			
X. Sind ..	1,57,361	13	8			
XI. *Burma*—						
(a) Capital ..	2,906	15	5			
(b) Cotton Improvement ..	18,486	11	6			
Carried over ..	33,39,969	0	1	41,96,602	11	1

BALANCE SHEET AS AT 31ST MARCH 1934—*concld.*

RECEIPTS.	Rs. a. p.
Brought forward ..	1,04,80,623 15 5
Grand Total ..	1,04,80,623 15 5

EXPENDITURE.	Rs. a. p.	Rs. a. p.
Brought forward	..33,39,960 0 1	41,96,502 11 1
Agricultural Research Grants—contd.		
XII. *Hyderabad*—		
(a) Botanical ..	1,13,469 13 11	
(b) Cotton Survey ..	18,047 1 0	
(c) Pink and Spotted Boll-worm ..	7,680 0 0	
XIII. Bikaner	28,376 6 9	
XIV. *Baroda*—		
(a) Root Rot ..	22,667 10 9	
(b) Comparative Tests .	4,251 5 3	35,34,461 5 9
Total Expenditure ..		77,30,964 0 10
XV. Loans recoverable (but considered doubtful)—		
1. Co-operative Cotton Sale Society, Hubli ..	8,063 9 3	
2. Co-operative Cotton Sale Society, Gadag ..	7,292 0 0	15,355 9 3
Suspense account		2,932 7 6
By balance		27,31,371 13 10
Grand Total ..		1,04,80,623 15 5

BALANCE SHEET AS AT 31ST MARCH 1934.

Provident Fund Account.

RECEIPTS.	Rs. a. p.	Rs. a. p.
Subscribers' contributions ..	1,40,336 13 9	
Less—Payments made to subscribers resigned and ..	34,251 15 3	
		1,06,084 14 6
Committee's contributions ..	1,37,286 8 11	
Less—Payments made to subscribers resigned and forfeitures to the Committee and to the Lapses and Forfeitures account ..	32,220 1 11	
		1,05,066 7 0
Suspense deposit of Mr. Dutt's own contributions with interest		968 1 10
Investment fluctuation account		23,984 9 5
Lapses and Forfeitures account		246 1 1
Grand Total ..		2,36,350 1 10

EXPENDITURE.	Rs. a. p.	Rs. a. p.
By advances to subscribers ..	25,038 3 0	
Less—Recoveries made up to 31st March 1934	23,378 0 0	
		1,660 3 0
Accrued interest on Government Paper credited to subscribers up to 31st March 1934 ..		1,738 2 0
By Balance		2,32,951 12 10
Grand Total ..		2,36,350 1 10

Statement of Receipts and Payments for the year ended 31st March 1934.

RECEIPTS.	Rs. a. p.	Rs. a. p.
Opening Balance ..	29,69,854 12 9	
Less—Adjustment of Dr. Pendleton's account ..	4 3 0	29,69,850 9 9
Receipts under Section 12 of the Indian Cotton Cess Act, 1923		5,83,672 8 7
†Other receipts		6,499 9 7
Interest on investments ..		1,32,624 0 5

EXPENDITURE.	Rs. a. p.	Rs. a. p.
Administration of the Committee (including Improvement of Cotton Marketing, Seed Distribution and Extension, Printing and Propaganda) ..		3,43,030 13 8
Agricultural Research Grants-in-aid.		4,09,543 14 9
Technological Research ..		1,90,412 1 4
Closing Balance—(Government Paper at cost)—		
3½ per cent. Government Promissory Notes of the face value of Rs. 7,06,300	4,43,583 2 5	
3½ per cent. Government of India Loan, 1947-50, face value of Rs. 2,75,000	2,18,032 13 0	
‡4 per cent. Government of India Loan, 1960-70, face value of Rs. 10,01,900	9,06,285 8 10	
4½ per cent. Government of India Loan, 1956-60, face value of Rs. 26,600	25,004 0 0	
5 per cent. Government of India Loan, 1939-44, face value of Rs. 3,09,000	2,96,679 13 6	
6 per cent. Bombay Municipal Debentures, 1954, face value of Rs. 50,000	56,500 0 0	
6 per cent. Karachi Port Trust Coupon Debentures, 1956, Face value of Rs. 1,30,000 ..	1,41,212 8 0	
6 per cent. Rangoon Municipal Debentures, 1955, face value of Rs. 3,83,500	4,15,328 2 0	
3½ per cent. India Sterling Loan Bearer—face value of £ 20,000 ..	2,20,688 14 10	
	27,23,314 14 7	

...rket value on 31st March 1934 ...

	Rs a p				Rs a p	Rs a p	Rs a p
			Imperial Bank of India Current Account			4,721 4 10	
			Imprest —				
			Committee's Accounts as certified by the Secretary ..		1,300 0 0		
			Technological Laboratory as certified by the Director, Technological Laboratory		500 0 0		
			High Commissioner for India, London, for scholarships (£100)		1,335 10 5	3,335 10 5	
			Suspense (Recoverable) ..			2,932 7 6	
			Loans Recoverable (but considered doubtful) ..			15,355 9 3	
			§Total Closing Balance				27,49,659 14 7
Total ..	36,92,646 12 4		Total .				36,92,646 12 4

*Includes Rs 3,672 2 0 on account of Sinking Fund and Rs 15,355 9 3 against loans recoverable from Hubli and Gadag Co operative Cotton Sale Societies

†Includes Rs 1,056 5 0 against provision for Sinking Fund for the year 1933 34 and Rupee one recovered in excess from the Director of Agriculture, Mozambique against cost of cotton seed supplied to him

‡4 per cent Government of India Loan, 1960 70, of the face value of Rs 1,16,900 has been deposited with the Imperial Bank of India for security against overdraft that may be required by the Committee

§This includes Rs 4,728 7 0 on account of provision for Sinking Fund

We have examined the above Statement of Receipts and Payments of the Indian Central Cotton Committee with the Books, Vouchers and Certified Returns of the Committee, have obtained all the information and explanations we have required and certify that to the best of our information and explanations received, the above Statement is a correct abstract of the figures appearing in the Books and is drawn up in conformity with the Rules under the Indian Cotton Cess Act, 1923

(Signed) S B BILLIMORIA & Co,
Registered Accountants, Auditors

Bombay, 27th April 1934.

Provident Fund Account as at 31st March 1934.

RECEIPTS	Rs. a. p.	Rs. a. p.	Rs. a. p.
Opening Balance as on 1st April 1933 ..		1,70,531 0 11	
Subscribers' contributions ..	17,606 6 0		
Less—Refunds for recoveries disallowed by Accountant General, Bombay ..	22 5 0		
	17,584 1 0		
Add—Recoveries against advances	3,141 12 0	20,725 13 0	
		1,91,256 13 11	
Less—Refunds to subscribers resigned, including wrong recoveries to Indian Central Cotton Committee.	2,435 4 8		
Advances to subscribers ..	2,855 14 0	5,291 2 8	
		1,85,965 11 3	
Committee's contribution received from Indian Central Cotton Committee at ..		17,584 1 0	

EXPENDITURE	Rs. a. p.	Rs. a. p.
By Balance—(Securities in Government Paper at Market Price)—		
3½ per cent. Government Notes of the face value of Rs. 85,600 ..	75,970 0 0	
4 per cent. Government of India Loan, 1934-37, of the face value of Rs. 2,000	2,012 8 0	
4 per cent. Government of India Loan, 1960-70, of the face value of Rs. 32,600	33,578 0 0	
5 per cent. Government of India Loan, 1939-44, of the face value of Rs. 25,600	27,456 0 0	
6½ per cent. Bombay Improvement Trust Loan of the face value of Rs. 17,500	18,681 4 0	
Savings Bank Deposit with the Imperial Bank of India ..	38,456 8 3	
Savings Bank Account with the Imperial Bank of India ..	16,734 2 0	
Current Account with the Imperial Bank of India	20,063 6 7	2,32,951 12 10
*Total Closing Balance		

Particulars	Rs. a. p.	Rs. a. p.	Rs. a. p.
Less—Payments to subscribers who have resigned including transfers to Lapses and Forfeitures account for contributions disallowed and wrong recoveries to Indian Central Cotton Committee .. .		2,391 3 10	2,01,158 8 5
Interest received on investments ..		7,465 11 3	
Interest received on advances to subscribers		185 4 1	
Refund of Income tax deducted on Interest received during 1932–33		221 13 0	
		7,872 12 4	
Less—Interest paid during the year to subscribers who have resigned—			
On their own contributions .	63 12 8		
On Committee's contributions	61 11 6		
Income tax deducted from interest on investments (recoverable) ..	105 5 3		
Bank's commission for collection of interest .	17 13 0		
Cost of Stationery, Printing, Sundry charges, etc. ..	61 8 0		
		310 2 5	
			7,562 0 11
			246 1 1
Lapses and Forfeitures Account .			
Investment Fluctuation Account ..			23,084 9 5
Total ..			2,32,951 12 10

Total .. 2,32,951 12 10

*Includes Rs. 968 1-10 being Suspense Deposit with interest thereon of Mr. Dutt's own contribution.

Examined and found correct.

(Signed) S. B. BILLIMORIA & Co,
Registered Accountants, Auditors.

Bombay, 27th April 1934.

Final Accounts, 1933–34.

RECEIPTS.	Rs. a. p.	Rs. a. p.
To Opening Balance as on 1st April 1933	29,50,827 1 6	
Loans recoverable account ..	15,355 9 3	
Sinking Fund account ..	3,672 2 0	
	29,69,854 12 9	
Less—Adjustment of Dr. Pendleton's account ..	4 3 0	
		29,69,850 9 9
Cotton Cess Receipts ..		5,83,672 8 7
Interest account (Net) ..		1,32,624 0 5
Other Receipts		5,443 4 7
Sinking Fund account		1,056 5 0

EXPENDITURE.	Sanctioned budget. Rs. a. p.	Actual expenditure. Rs. a. p.	Saving resumed to closing balance. Rs. a. p.
I. A. *Administration* ..	1,51,160 0 0	1,10,302 7 4	40,857 8 8
B. *Improvement of Cotton Marketing*—			
(1) Cost of Exhibits, Moisture tests, etc. ..	5,000 0 0	1,201 10 4	3,798 5 8
(2) Cost of growing cotton in India ..	73,143 0 0	60,000 0 0	13,143 0 0
C. *Seed Distribution and Extension Schemes*—			
(1) Bombay Presidency—			
(*i*) Hubli ..	8,560 0 0	7,843 14 9	716 1 3
(*ii*) Gadag ..	9,240 0 0	8,364 11 11	875 4 1
(*iii*) Gadag Supplementary ..	4,612 0 0	4,488 4 1	123 11 11
(*iv*) Haveri ..	2,800 0 0	....	2,800 0 0
(*v*) Athani ..	6,322 0 0	5,440 4 0	881 12 0
(*vi*) Bailhongal ..	4,285 0 0	....	4,285 0 0
(*vii*) Surat ..	7,860 0 0	5,309 2 9	2,550 13 3
(*viii*) Khandesh ..	52,068 0 0	26,780 7 3	25,287 8 9

Carried over .. 36,92,646 12 4

	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
(2) Madras Presidency—									
(i) Pay and allowance of Business Manager, Tiruppur .	3,600	0	0	3,474	3	0	125	13	0
(ii) Co. 2 ..	11,630	0	0	6,482	15	6	5,147	0	6
(iii) H 1 ..	4,480	0	0	4,480	0	0	....		
(3) Sind ..	38,000	0	0	36,450	6	11	1,549	9	1
(4) Hyderabad State ..	5,056	0	0	4,472	14	4	583	1	8
(5) Central Provinces ..	25,069	8	0	18,294	7	0	6,775	1	0
(6) Baroda ..	5,120	0	0	....			5,120	0	0
(7) Punjab—Sale of all Farm crop produce ..	5,000	0	0	....			5,000	0	0
D. *Printing and Propaganda*—									
(a) Publicity and Propaganda	29,209	0	0	26,150	5	9	3,058	10	3
(b) Printing and Distribution	11,000	0	0	8,416	5	9	2,583	10	3
E. *Statistical Research* ..	22,500	0	0	5,463	0	0	17,037	0	0
Carried over ..	4,85,714	8	0	3,43,415	8	8	1,42,298	15	4

Final Accounts, 1933–34—contd.

RECEIPTS.

	Rs.	a.	p.
Brought forward ..	36,92,646	12	4

EXPENDITURE.

	Sanctioned budget. Rs.	a.	p.	Actual expenditure. Rs.	a.	p.	Savings resumed to closing balance. Rs.	a.	p.
Brought forward ..	4,85,714	8	0	3,43,415	8	8	1,42,298	15	4
II. *Technological Research*—									
1. Technological Laboratory—									
(*a*) Capital Expenditure ..	24,000	0	0	22,119	13	4	1,880	2	8
(*b*) Working Expenses ..	1,66,055	0	0	1,56,731	13	0	9,323	3	0
2. Provincial ..	14,500	0	0	11,560	7	0	2,939	9	0
III. *Research Studentships* ..	20,000	0	0	14,453	7	10	5,546	8	2
Agricultural Research Grants.									
IV. *Bombay*—									
(*a*) 1. Surat Physiological ..	514	0	0	434	5	0	79	11	0
2. Surat Physiological Writing up ..	6,961	1	0	6,035	7	6	925	9	6

Carried over .. 36,92,616 12 4

(b) Surat Boll-worm Clean-up ..	60,683 0 0	32,885 5 3	27,797 10 9
(c) 1 Dharwar Wilt ..	120 0 0	....	120 0 0
2. Dharwar Wilt Writing	1,151 5 0	677 3 11	474 1 1
(d) Broach Cotton Breeding ..	13,000 0 0	11,938 11 3	1,061 4 9
(e) Jalgaon Cotton Breeding ..	7,414 0 0	6,853 1 9	560 14 3
(f) Co ordination of Cotton Research ..	1,000 0 0	124 2 6	875 13 6
(g) Khandesh Cotton Breeding .	340 13 0	340 13 0	....
(h) Small Leaf Disease Survey.	1,850 0 0	1,828 0 0	22 0 0
V. *Madras*—			
(a) Herbaceum ..	10,100 0 0	9,975 4 3	124 11 9
(b) Pempheres and Physiological	29,403 0 0	17,438 3 5	11,964 12 7
(c) Fodder Cholam.	3,312 0 0	2,877 2 7	434 13 5
(d) Breeding of Nadam Cotton ..	2,790 0 0	2,328 0 0	462 0 0
Carried over ..	8,48,908 11 0	6,42,016 14 3	2,06,891 12 9

RECEIPTS.	Rs.	a.	p.
Brought forward ..	36,92,646	12	4

EXPENDITURE.	Sanctioned budget. Rs.	a.	p.	Actual expenditure. Rs.	a.	p.	Savings resumed to closing balance. Rs.	a.	p.
Brought forward ..	8,48,908	11	0	6,42,016	14	3	2,06,891	12	9
VI. *Punjab*—									
(*a*) Botanical ..	60,200	0	0	25,295	7	8	34,904	8	4
(*b*) Entomological .	22,060	0	0	18,270	5	3	3,789	10	9
(*c*) White Fly ..	11,920	0	0	11,695	5	6	224	10	6
(*d*) Root Rot ..	4,502	0	0	3,698	7	0	803	9	0
(*e*) Spraying Trials	8,000	0	0	3,708	12	0	4,291	4	0
(*f*) Physiological ..	4,462	0	0	....			4,462	0	0
(*g*) Defibrating and Delinting—									
(1) Non-recurring.	6,700	0	0	6,700	0	0	....		
(2) Recurring.	1,000	0	0	1,000	0	0	....		
VII. *Central Provinces* ..	47,619	0	0	34,439	2	1	13,179	13	11
VIII. *United Provinces*—									
(*a*) Recurring grant for staff ..	7,680	0	0	6,752	6	1	927	9	11

Carried over .. 36,92,646 12 4

		Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
	(b) Rohilkhand and Bundelkhand Cotton Survey ..	5,200	0	0	4,985	0	0	215	0	0
IX.	*Institute of Plant Industry, Indore.*	1,00,000	0	0	1,00,000	0	0	....		
X.	*Sind* ..	28,143	0	0	23,015	8	2	5,127	7	10
XI.	*Burm Cotton Improvement.*	8,712	0	0	8,202	1	0	509	15	0
XII.	*Hyderabad*—									
	(a) Botanical ..	26,629	0	0	24,674	1	0	1,959	15	0
	(b) Cotton Survey.	9,163	0	0	8,162	11	2	995	4	10
	(c) Pink and Spotted Boll-worm ..	11,680	0	0	7,680	0	0	4,000	0	0
XIII.	*Bikaner* ..	7,640	0	0	3,615	6	9	4,024	9	3
XIV.	*Baroda*—									
	(a) Root Rot ..	11,448	10	0	9,611	13	3	1,836	12	9
	(b) Comparative Tests ..	173	0	0	144	5	3	28	10	9
	Carried over ..	12,31,840	5	0	9,43,667	10	5	2,88,172	10	7

Final Accounts, 1933–34—*concld.*

RECEIPTS.

	Rs. a. p.
Brought forward ..	36,92,646 12 4
Total ..	36,92,646 12 4

EXPENDITURE.

	Sanctioned Budget.	Actual expenditure.	Savings resumed to closing balance.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
Brought forward ..	12,31,840 5 0	9,43,667 10 5	2,88,172 10 7
XV. *Bengal Comilla* ..	3,085 0 0	....	3,085 0 0
Total ..	12,34,925 5 0	9,43,667 10 5	2,91,257 10 7
Less—Refunds of the unexpended balances in parts—			
(1) Lyallpur ginnery ..	....	—384 11 0	+384 11 0
(2) Surat Boll-worm Writing ..	....	—104 13 0	+104 13 0
(3) Dharwar Wilt ..	....	—191 4 8	+191 4 8
Total ..		9,42,986 13 9	2,91,938 7 3
XVI. *Loans recoverable (but considered doubtful)*—			
(1) Hubli Co-operative Cotton Sale Society.	8,063 9 3		
(2) Gadag Co-operative Cotton Sale Society ..	7,292 0 0	15,355 9 3	
By Balance ..		27,34,304 5 4	
Total ..		36,92,646 12 4	

RECEIPTS.	Rs. a. p.	Rs. a. p.
To Opening *Balance* on 1st April 1933		1,70,531 0 11
Subscribers' contributions account	17,584 1 0	
Committee's contributions account	17,584 1 0	
	35,168 2 0	
Recoveries against advances .	3,141 12 0	
		38,309 14 0
Interest (Net) received ..	7,749 10 1	
Less—Expenses for stationery, stamps and professional charges to solicitors for *amendment* of Provident Fund Rules	61 8 0	
		7,688 2 1
Lapses and Forfeitures account		246 1 1
Investments fluctuation account		23,984 9 5
Total ..		2,40,759 11 6

EXPENDITURE.	Rs. a. p.
By refunds to subscribers, resigned, of their own contributions with interest	2,490 1 4
By payment of Committee's contributions with interest to subscribers, resigned, and forfeitures to the Provident Fund	2,452 15 4
By Advances made	2,855 14 0
By Balance	2,32,951 12 10
Total ..	2,40,759 11 6

Revised Estimates, 1934-35—*All Heads*.

(As passed by the Indian Central Cotton Committee at its 29th Meeting held on the 29th August 1934.)

RECEIPTS.	Rs. a. p.	Rs. a. p.
Opening Balance ..	27,34,304 5 4	
Loans Recoverable account ..	15,355 9 3	
		27,49,659 14 7
Cotton cess receipts ..		5,00,000 0 0
Interest account ..		1,18,500 0 0
Miscellaneous receipts ..		4,000 0 0

EXPENDITURE.	Rs. a. p.	Rs. a. p.
I. A. Administration ..		1,51,020 0 0
B. *Improvement of Cotton Marketing*—		
(*i*) Cost of exhibits, moisture tests, etc. ..	5,000 0 0	
(*ii*) Cost of growing cotton in India ..	73,143 0 0	
		78,143 0 0
C. *Seed Distribution and Extension Schemes*—		
(1) *Bombay Presidency*—		
(*i*) Hubli ..	8,679 0 0	
(*ii*) Gadag ..	8,737 0 0	
(*iii*) Gadag Supplementary ..	5,159 0 0	
(*iv*) Haveri ..	2,800 0 0	
(*v*) Athani ..	12,465 0 0	
(*vi*) Bailhongal ..	4,285 0 0	
(*vii*) Surat ..	11,931 0 0	
(*viii*) Khandesh ..	46,535 0 0	
(*ix*) Deccan Canals (Banilla) ..	5,030 0 0	

Receipts	Rs. a. p.	Payments	Rs. a. p.	Rs. a. p.
		(2) *Madras Presidency*—		
		(i) Pay and allowance of Business Manager, Tiruppur ..	5,305 0 0	
		(ii) Co 2 ..	18,580 0 0	
		(iii) H-1 ..	14,380 0 0	
		(3) Sind ..	54,924 0 0	
		(4) Hyderabad State ..	5,128 0 0	
			2,016 0 0	
		(5) *Central Provinces*—		
		(i) Verum cotton ..	8,997 4 0	
		(ii) Extension and marketing of long staple cotton ..	38,754 0 0	
		(6) Baroda ..	5,120 0 0	
		(7) Punjab—Sale of all farm crop produce ..	5,000 0 0	
				2,63,825 4 0
		D *Printing and Propaganda*—		
		(a) Publicity and Propaganda ..	30,074 0 0	
		(b) Printing and Distribution ..	11,000 0 0	
				41,074 0 0
Carried over ..	33,72,159 14 7	Carried over ..		5,34,062 4 0

Revised Estimates, 1934–35—All Heads—contd.

RECEIPTS.	Rs. a. p.
Brought forward ..	33,72,159 14 7

EXPENDITURE.	Rs. a. p.	Rs. a. p.
Brought forward ..		5,34,062 4 0
E. Statistical Research ..		16,032 0 0
II. *Technological Research*—		
(1) *Technological Laboratory*—		
(*a*) Capital expenditure ..	42,600 0 0	
(*b*) Working expenses ..	1,71,198 0 0	
(2) Provincial ..	18,211 0 0	
(3) Development of alternative uses for Indian cottons ..	20,000 0 0	2,52,009 0 0
III. Research Studentships ..		20,000 0 0
Agricultural Research Grants—		
IV. *Bombay*—		
(*a*) Surat Boll-worm Clean-up Scheme.	4,584 0 0	
(*b*) Broach Cotton Breeding Scheme.	10,044 0 0	
(*c*) Jalgaon Cotton Breeding Scheme.	8,043 0 0	
(*d*) Small Leaf Disease Survey ..	3,268 0 0	

Item	Rs.	a.	p.	Rs.	a.	p.
(e) Dharwar Wilt Writing up Scheme ..	145	4	0			
(f) Survey of Goghari cotton .	510	0	0			
(g) Defibration of cotton seed .	5,450	0	0			
V. *Madras*—						
(a) Herbaceum ..	9,110	0	0			
(b) Pempheres and Physiological ..	35,859	0	0			
(c) Fodder Cholam .	4,168	0	0			
(d) Breeding of Nadam cotton	2,528	0	0			
VI. *Punjab*—						
(a) Botanical .	61,810	0	0			
(b) *Entomological* (Pink and Spotted Boll worms) ..	31,100	0	0			
(c) White Fly ..	10,709	0	0			
(d) Root Rot ..	4,814	0	0			
(e) Spraying Trials ..	6,590	0	0			
(f) Physiological ..	17,184	0	0			
(g) Survey of Disease of Malformation .	2,674	0	0			
Carried over ..	2,18,590	4	0	8,22,103	4	0

	Rs.	a.	p.
..	33,72,159	14	7

Revised Estimates, 1934–35—All Heads—contd.

RECEIPTS.	Rs. a. p.
Brought forward ..	33,72,159 14 7

EXPENDITURE.	Rs. a. p.	Rs. a. p.
Brought forward ..		5,34,062 4 0
E. Statistical Research ..		16,032 0 0
II. *Technological Research*—		
(1) *Technological Laboratory*—		
(*a*) Capital expenditure ..	42,600 0 0	
(*b*) Working expenses ..	1,71,198 0 0	
(2) Provincial ..	18,211 0 0	
(3) Development of alternative uses for Indian cottons ..	20,000 0 0	2,52,009 0 0
III. Research Studentships ..		20,000 0 0
Agricultural Research Grants—		
IV. *Bombay*—		
(*a*) Surat Boll-worm Clean-up Scheme.	4,584 0 0	
(*b*) Broach Cotton Breeding Scheme.	10,044 0 0	
(*c*) Jalgaon Cotton Breeding Scheme.	8,043 0 0	
(*d*) Small Leaf Disease Survey ..	3,268 0 0	

		Rs. a. p.	Rs. a. p.
XIII.	Bikaner ..	7,640 0 0	
XIV.	*Baroda*—		
	(a) Root Rot ..	11,718 0 0	
	(b) Survey of Goghari cotton ..	510 0 0	
XV.	Bengal Comilla cotton ..	3,085 0 0	5,24,317 4 0
XVI.	Loans recoverable (but considered doubtful)—		
	(1) Hubli ..	8,063 9 3	
	(2) Gadag ..	7,292 0 0	15,355 9 3
	By Balance ..		20,10,383 13 4
	Grand Total ..		33,72,159 14 7

Grand Total .. 33,72,159 14 7

Revised Estimates, 1934-35—*All Heads*—concld.

RECEIPTS.

	Rs.	a.	p.
Brought forward ..	33,72,159	14	7

EXPENDITURE.

	Rs.	a.	p.	Rs.	a.	p.
Brought forward ..	2,18,590	4	0	8,22,103	4	0
VII. *Central Provinces*—						
(*a*) Botanical ..	37.742	0	0			
(*b*) ·Entomological ..	3,380	0	0			
VIII. *United Prvoinces*—						
(*a*) Recurring grant for staff ..	1,103	0	0			
(*b*) Rohilkhand and Bundolkhand Cotton Survey ..	5,300	0	0			
IX. Institute of Plant Industry. Indoro ..	1,15,000	0	0			
X. Sind ..	33,438	0	0			
XI. Burma Cotton Improvement.	10,260	0	0			
XII. *Hyderabad*—						
(*a*) Botanical ..	56,710	0	0			
(*b*) Cotton Survey ..	9,211	0	0			
(*c*) Pink and Spotted Boll-worm ..	10,630	0	0			

		Rs. a. p.	Rs. a. p.
Grand Total .. 33,72,159 14 7	XIII. Bikaner ..	7,640 0 0	
	XIV. *Baroda*— (a) Root Rot ..	11,718 0 0	
	(b) Survey of Goghari cotton ..	510 0 0	
	XV. Bengal Comilla cotton ..	3,085 0 0	5,24,317 4 0
	XVI Loans recoverable (but considered doubtful)—		
	(1) Hubli ..	8,063 9 3	
	(2) Gadag ..	7,292 0 0	15,355 9 3
	By Balance ..		20,10,383 13 4
	Grand Total ..		33,72,159 14 7

Revised Estimates, 1934-35—Provident Fund Account.

RECEIPTS.	Rs. a. p.	Rs. a. p.	EXPENDITURE.	Rs. a. p.
[B]alance on 1st April 1934		2,32,951 12 10	By subscribers' contributions account	1,234 2 3
[Sub]scribers' contributions ..	20,000 0 0		By Committee's contributions account	1,192 10 10
[Com]mittee's contributions ..	20,000 0 0	10,000 0 0	By Balance	2,81,358 15 3
[Re]coveries against advances ..		1,660 3 0		
[La]pses and Forfeitures account.		273 12 6		
[I]nterest receivable ..		8,900 0 0		
Total ..		2,83,785 12 4	Total ..	2,83,785 12 4

BUDGET FOR GOVERNMENT SERVANTS, 1935 36

Budget for 1935 36 for pay and allowances of Government servants lent to the Indian Central Cotton Committee

34 A—Agriculture

INDIAN CENTRAL COTTON COMMITTEE

Budget Estimates for 1935 36

No	Sub and detailed heads	Amount of provision
	PAY OF OFFICERS	
	Non Voted	
		Rs
1	Secretary—Pay Rs 350—50—1,250, overseas pay Rs 300 and special pay 400	21,074
	Deduct—Emergency deduction from pay for March 1935 at 5 per cent	—87
1	Deputy Secretary—Pay Rs 350—50—1,250, overseas pay Rs 300 and special pay Rs 250	16 800
	Deduct—Emergency deduction from pay for March 1935 at 5 per cent	—70
	PERMANENT PAY OF ESTABLISHMENT	
5	Superintendent and clerks (at rates varying from Rs 70 to Rs 750)	22,057
	Deduct—Emergency deductions from pay for March 1935 at 5 per cent	—89
	Leave salary—Establishment	1,300
	ALLOWANCES, HONORARIA, ETC	
	Non Voted	
	House rent and other allowances	1 200
	Travelling allowance of officers	4 000
	Voted	
	Travelling allowance of Establishment	300
	Total { Non voted	45 917
	Total { Voted	23 568
	Grand total	69,485
	Deduct—Recoveries from the Committee	68 185
	Nett—Leave salary of Establishment paid by Government	1 300

APPENDIX VIII.

SUBJECT 78.—*Universal Standards for Indian cotton—Progress Report.*

Secretary's Note.

At the last meeting of the Committee it was reported that in compliance with a Resolution of the Committee at its February 1933 meeting, the Local Sub-Committee had appointed a special sub-committee called the Standards Sub-Committee consisting of one representative of the Imperial Council of Agricultural Research, two of the East India Cotton Association and two of the Karachi Cotton Association for the purpose of preparing standards which would be common to the two Cotton Associations operating in India, *viz.*, the East India Cotton Association and the Karachi Cotton Association.

2. The Standards Sub-Committee, as constituted above, met twice in January 1934 and decided that standards should be prepared for the following cottons, the first four of which should be dealt with at Karachi and the remainder at Bombay :—

(1) Bengals.	(4) Sind-American.	(7) Dholleras.
(2) Sind.	(5) Oomras.	(8) Broach.
(3) Punjab-American	(6) Mathias.	(9) Kumptas.

3. The Standards Sub-Committee also decided which particular growths of the above cottons should be used for preparing standards and also the number and description of standards of each variety of cotton which should be prepared.

4. The constitution of the Standards Sub-Committee was modified as follows by the Local Sub-Committee at its meeting held on the 20th July 1934.

(*a*) When standards for such cottons as are dealt with by both the Karachi and East India Cotton Associations are to be passed by the Standards Sub-Committee, two representatives each of both these Associations and one representative of the Imperial Council of Agricultural Research would constitute the Standards Sub-Committee.

(*b*) When standards for such cottons as are dealt with by only one of the Associations are to be passed by the Standards Sub-Committee, the representatives of the Association not concerned should be replaced by two representatives of cotton growers of the cotton tract concerned.

5. The Local Sub-Committee also decided at its meeting on the 20th July 1934 that the Indian Central Cotton Committee should every year preserve in hermetically sealed boxes a set of standards passed by the Standards Sub-Committee for reference in case of dispute. No final decision was, however, arrived at as to where these standards should be stored and this point will be further considered.

6. At its meeting held on the 18th August 1934, the Local Sub-Committee decided that the appointment of the cotton growers on the Standards Sub-Committee should be made by the Committee on the recommendation of the Directors of Agriculture of the Provinces concerned but that should it not be possible to appoint two cotton growers for any tract, one person representing cotton marketing interests should be appointed in place of one of the cotton growers.

At this same meeting the Local Sub-Committee decided that members of the Standards Sub-Committee should be paid actual out-of-pocket expenses up to a maximum of a single first class fare by rail or steamer, mileage by road at six annas a mile and a daily allowance not exceeding Rs. 7 per day on days when they actually attend meetings of the Standards Sub-Committee.

APPENDIX IX.

SUBJECT 84.—*Proposed introduction of a common unit for the purchase of seed cotton throughout India.*

Secretary's Note.

The Committee at its meeting in January last passed the following resolution :—

"That in regard to the unification of weights for *kapas* the Indian Central Cotton Committee approves of the policy advised by the Governments of Bombay and United Provinces, *viz.*, that both the Railway maund of 82$\frac{2}{7}$ lbs., which is based on the tola and the khandy of 784 lbs. which is based on the pound avoirdupois should be retained and that efforts should first be concentrated on the elimination of unauthorised maunds and unauthorised khandies."

The decision of the Committee was communicated to the Governments of Bombay, Madras, Punjab, the United Provinces and the Central Provinces and to the Hyderabad, Baroda, Mysore, Gwalior and Indore States The replies from the Local Governments are attached No final reply has been received from any of the States addressed

Bombay—Under the Bombay Weights and Measures Act, *1932*, the *railway maund* of [illegible] lbs denominated the Bombay maund is prescribed as one of the standard weights ... ard weights and hence in all future ... dy, its equivalent will have to be ... s, quarters cwts, tons or maunds ... ood that the Act will be put into ... Districts of Broach, Surat, Thana, ... ra, *Belgaum*, Karachi and Sukkur

Madras—The maund of 28 lbs and the candy of 784 lbs are being prescribed as *standard units for all cotton transactions*

Punjab—No cotton transactions are made by the khandy, the only unit of weight being *the maund of* $82\frac{2}{7}$ *lbs The question of elimination of* units of weight other than the maund does not arise

United Provinces—The Local Government have ... Provinces Cotton Ginning and Pressing Factories ... ments of *kapas*, ginned cotton or pressed cotton ... maund of 82 lbs or the khandy of 784 lbs and their fractions

Central Provinces—Cotton markets in the Central Provinces and Berar have been asked to take steps to adopt before the next cotton season begins, the standard weights recommended by the Committee Unauthorised weights will be *gradually* eliminated by *the increasing use of the above standard weights by important buyers and sellers*

It is not apparent what the objection of the Bombay Government is to the standardisation *of the khandy of 784 lbs*, and *it is for consideration if the* Committee should not press for its recognition

As regards the standardisation of a maund of 28 lbs in Madras, the Local Government state that the growers and the trade are definitely in favour of *this unit of weight*

APPENDIX X

SUBJECT 85—*Broadcasting of commercial news on cotton*

Secretary's Note.

"That the Indian Central Cotton Committee requests the Government of India to resume the broadcasting of all commercial news connected with cotton in the mornings particularly through Bombay Radio Station"